

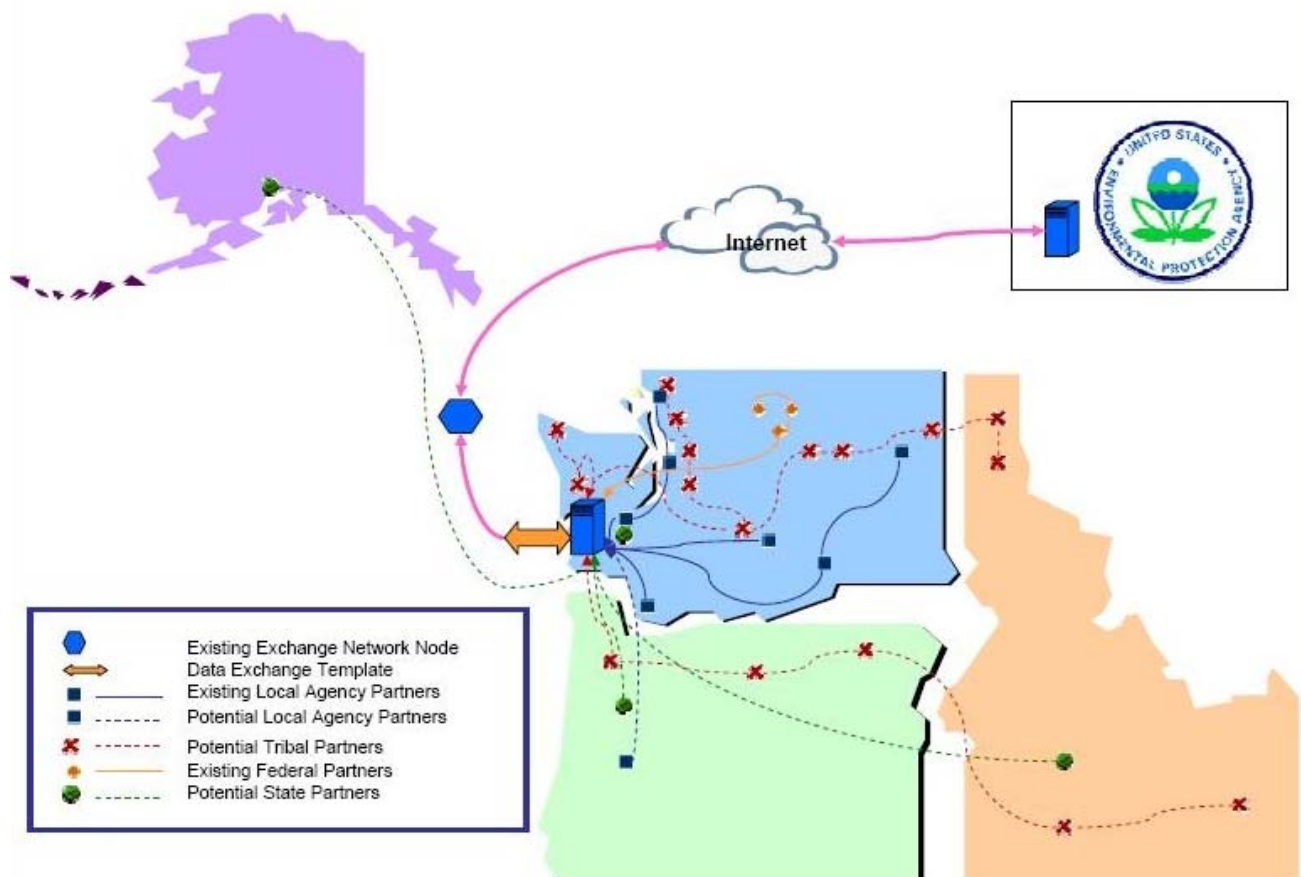
Washington Department of Ecology
Air Quality Program



Request for Proposal # 0603 AIR

***Regarding Ambient Air Monitoring Data Collection and Reporting System
Upgrades for the Northwest Data Exchange System (NWADES)***

November 3, 2005



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1 General Information

1.1 Issuing Office/Legal Basis

The Department of Ecology conducts this acquisition process under Chapter 43.105 of the Revised Code of Washington (RCW). This acquisition includes compliance with the statewide policies issued under the authority of the Information Services Board (ISB), the guidelines approved by the ISB and published by the Department of Information Services (DIS), Management and Oversight of Strategic Technologies Division (DIS/MOSTD), and other applicable laws and regulations. Only information supplied by the Department of Ecology, in writing, through the Request for Proposal (RFP) Coordinator, or in this RFP should be used as the basis for the preparation of vendor proposals.

1.2 Purpose

The Department of Ecology partners with several local air agencies to operate 83 ambient air-quality monitoring sites in the state of Washington. As part of its air-monitoring network, Ecology operates a data collection system that is critically close to capacity. There are emerging needs to expand beyond the existing capacity. The data collected by the system measures over 149 different parameters. Included are the criteria pollutants, the meteorological parameters, and the real-time PM_{2.5} network (including the smoke management/advisory network). Ecology and its partners also collect automated sulfate, nitrate, and elemental and organic carbon in support of our speciation network. Ecology also wishes to replace its mechanical strip chart recorder with an electronic version.

Ecology provides visual displays of near-real time data on its website, and also provides a dataset to AIRNOW and Environmental Protection Agency's Air Quality System (AQS). For more information on Ecology, please visit <http://www.ecy.wa.gov/programs/air/airhome.html>.

Given the status of the data collection system, the Department of Ecology intends to

- Replace it's current data acquisition system with an Internet-based system, and
- Share ambient air quality data on the Washington node of EPA's Central Data Exchange (CDX).

The Department of Ecology has a project underway called the Northwest Air Data Exchange System (NWADES), funded by an EPA grant. Ecology, its local air agency partners, the Municipality of Anchorage, Alaska, and the Idaho Department of Environmental Quality are working together to improve the infrastructure and systems that support ambient air monitoring.

The local air agencies participating in this project are:

- Northwest Clean Air Agency
- Puget Sound Clean Air Agency
- Olympic Region Clean Air Agency
- Southwest Clean Air Agency
- Benton Clean Air Authority
- Spokane County Air Pollution Control Authority
- Yakima Regional Clean Air Agency

The purpose of this RFP is to select a vendor to provide updated data acquisition equipment and management systems.

This RFP focuses primarily on the following areas:

- Data logging equipment
- Real-time and filtered data acquisition
- The central data repository
- Graphical data viewing, editing, and reporting
- Precision and accuracy
- Site information and configuration management
- Improving the flow of data from the field to those who analyze and maintain the data
- Increase automation of processes to cut the cost of on-site maintenance and manual processing of data
- Facilitating the exchange of validated data to the EPA CDX node
- Project Management and Implementation

Only vendors with proven air quality monitoring/reporting system software products that are in production use at other State and/or Local Government Air Pollution Control Agencies will be considered. The Agency is not interested in purchasing professional services to design and develop a system from scratch.

This RFP shall result in a single source award.

1.3 Current Technical Environment

Ecology and its partners operate 83 air-monitoring sites. The sites capture near-real-time air quality data as well as manual-method filter samples which are sent to Ecology's lab for testing. For real-time data capture, the sites use ESC 8800 and 8816 data loggers. The data loggers are polled via leased and dial-up lines, and data is transferred to the central system in Lacey.

The current central system is the ESC HP-UX EDAS system from Environmental Systems Corporation (ESC). Ecology also uses the ESC EDAS for Windows to manage the dial-up polling of the monitoring sites. The polled data is then transferred to the ESC HP-UX EDAS system for storage and reporting.

Ecology uses assorted databases, spreadsheets and processes to store and report manual method data. Ecology transfers near real-time, unvalidated data to a web server for use by the public, site operators, and other air agencies.

The following is a list of the analyzers used by Ecology and its partners.

- Thermo Environmental 48C CO analyzer
- Thermo Environmental 43C SO₂ analyzer
- Thermo Environmental 42C NO₂ Analyzer
- Radiance Research M903 Nephelometer
- R&P 5400 Series Sulfate Analyzer
- R&P 5400 Series Nitrate Analyzer
- Sunset Labs Total Carbon (continuous carbon analyzer)
- R&P ECOC continuous carbon analyzer

- R&P TEOMs (PM10 and PM2.5)
- R&P 2000 & 2025 PM2.5 FRM samplers (manual method)
- Dasibi 1008PC Ozone analyzers & transfer standards
- Dasibi 5008 Multi-gas calibrator
- API 401 Ozone transfer standard
- Environics 6103 Multi-gas calibrator
- Environics 9100 Multi-gas calibrator
- Graseby Andersen Hi-vol PM10 sampler (manual method)
- Magee Scientific Aethalometer (both 2 and 7 channel)
- RM Young Meteorological equipment (temp, WD, WS)
- ESC 8800 and 8816 Data loggers
- Andersen 400 series Speciation samplers (manual method)
- URG 400 series speciation samplers (manual method)
- Xontech 925 Carbonyl sampler (manual method)
- Xontech 910PC VOC sampler (manual method)
- Met One EBAM
- Met One Speciation sampler (manual method)
- Met One BAM PM2.5
- CEREX Sentry UV DOAS (Open Path)
- Ecotech Nephelometer
- Tanabyte 300 Calibrator
- Remtech Sodar
- Campbell Scientific Meteorology Sensors
- Andersen FAG BAM
- Met One Temp/RH Sensor
- Met One Data logger
- Met One 50.5 Ultrasonic Wind Birds

The following diagram depicts the architecture of today's air monitoring telemetry system ([Telemetry072804.pdf](#)).

1.4 RFP Schedule

The following table lists the activities relevant to the RFP process. Ecology reserves the right to change these dates and will notify suppliers in such a case.

Activity	Time	Date
RFP released		11/3/2005
Vendor questions due	5:00 P.M. (Pacific Time)	11/15/2005
Vendor pre-bid conference held	10:00 A.M. (Pacific Time)	11/17/2005
Answers to vendor questions issued		11/23/2005
Proposals due	3:00 P.M. (Pacific Time)	1/13/2006
<i>The following dates are estimates.</i>		
Evaluations complete (Phase 1 complete)		1/20/2006
Finalists selected (Phase 2 begins)		1/20/2006
Vendor demonstrations start		1/23/2006
Vendor demonstrations end		1/27/2006
Apparent successful vendor selected		1/31/2006
Protest period ends		2/7/2006
Contract negotiations complete		2/21/2006
Planning and Implementation begins		3/1/2006

1.5 Deadline for Submitting Proposals

As stated above, the deadline for submitting proposals is **3:00 p.m. Pacific Time**, on January 13, 2006. **Proposals arriving after the deadline will neither be opened nor evaluated.**

1.6 Contact Information

The NWADES Project Team is comprised of Ecology employees as well as representatives of several local air agencies. All questions/correspondence must be submitted to the NWADES RFP Coordinator.

Mailing Address (U.S. Postal Service):

Department of Ecology
Air Quality Program
Attention: Kathy Sundberg, RFP Coordinator
P.O. Box 47600
Olympia, WA 98504-7600

Important: This is the only address the U.S. Postal Service will use to deliver proposals. The Postal Service will not deliver a proposal to the physical delivery address listed immediately below.

Hand Delivery or Courier Service Address only:

Department of Ecology
Air Quality Program
Attention: Kathy Sundberg, RFP Coordinator
300 Desmond Drive SE
Olympia, WA 98503

Vendors shall contact Kathy Sundberg via e-mail (ksun461@ecy.wa.gov) if questions arise (according to the aforementioned schedule). Vendors must not contact other Air Quality Program staff members or members of local air agencies that partner with Ecology. **Violation of this requirement will result in disqualification.** The RFP Coordinator may, at her option, initiate discussion with vendors who submit responsive or potentially responsive proposals for the purpose of clarifying aspects of the proposals

1.7 Federal Funding and Regulations

The project resulting from this RFP will be funded through an EPA National Environmental Information Exchange Network grant. Because of federal funding, issuance and response to this RFP may trigger compliance with many federal crosscutting statutes.

1.7.1 Multiple Jurisdiction Use of Contracts

Since this acquisition is funded through an EPA regional grant, other governmental entities and Native American tribes within EPA Region 10 may use the resulting contracts to:

- Purchase any products and services proposed by the vendor under the pricing options found in [Section 6](#) – Pricing Section or;
- Partner with the Washington State Department of Ecology to host, display and report data acquired from air monitoring sites located outside the state of Washington, but within other Region 10 jurisdictions (Idaho, Oregon, and Alaska).

1.7.2 Small Businesses in Rural Areas

The vendor that is awarded this bid is required to utilize the following affirmative steps to the maximum extent practicable if subcontracts are awarded:

1. Placing Small Businesses in Rural Areas (SBRAs) on solicitation lists;
2. Making sure that SBRAs are solicited whenever they are potential sources;
3. Dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation by SBRAs;
4. Establishing delivery schedules, where the requirements of work will permit, which would encourage participation by SBRAs;
5. Using the service of the Small Business Administration and Minority Business Development Agency of the U.S. Department of Commerce, as appropriate.
6. Use of Foreign Vendors and Subcontractors

If the primary vendor or subcontractors will be doing any work pertaining to this acquisition and resulting contract outside of the United States, Ecology must get approval from EPA's Office of International Affairs, even if the benefit of the work is entirely domestic. Vendors must disclose where any work on their proposed systems will take place (Respond in [Section 2.7](#)).

1.8 Addendum as a Part of This RFP

Any addenda to this RFP shall become part of this RFP and part of any contract resulting from this RFP. Vendors are responsible for applying changes to the RFP based on addenda issued by Ecology. Vendors are encouraged to submit their intent to bid in order to be included in an e-mail distribution list or listserv that will be used for distributing information and updates to this RFP. Proposal documents submitted should reference the original RFP and any addenda identifiers issued subsequent to the issue of this RFP. Ecology also reserves the right to cancel or to reissue the RFP in whole or in part, prior to execution of a contract.

1.9 Submission of Proposals

Responses to this RFP are due by **3:00 p.m. (Pacific Time)**, on the date specified in the schedule found in [Section 1.5](#). **Proposals arriving after the deadline will neither be opened nor evaluated.**

After the submission of bid proposals, unless requested by Ecology, contact with Ecology is limited to status inquiries only and such inquiries are only to be directed to the RFP Coordinator. Any further contact or information about the proposal submitted to the RFP Coordinator, local air authority, NWADES Project Team member, or State official connected with the solicitation will be considered an impermissible supplementation of the bidder's bid proposal. **Such actions may result in disqualification.**

However, the RFP Coordinator reserves the right to contact vendors for clarification of the contents of proposals submitted for this RFP. Vendors may respond (to the RFP Coordinator) to for additional information.

1.10 Vendor Responsibility

The vendor assumes sole responsibility for the complete effort required in this RFP. No special consideration shall be given after bids are opened because of a vendor's failure to be knowledgeable

of all the requirements of this RFP. By submitting a bid proposal in response to this RFP, the vendor represents that it has satisfied itself, from its own investigation, of all the requirements of this RFP.

1.11 Cost Liability

The State of Washington assumes no responsibility and bears no liability for costs incurred by bidders before the award of the contract resulting from this RFP.

1.12 Proprietary and/or Confidential Information/Public Disclosure

Materials submitted in response to this competitive procurement will become the property of Ecology.

All proposals received will remain confidential until the contract, if any, resulting from this RFP, is signed by the Project Executive Sponsor or designee and the apparently successful vendor. Thereafter, the proposals will be deemed public records as defined in RCW 42.17.250 to 42.17.340, "Public Records."

Any information contained in the vendor proposal that the vendor considers proprietary must be clearly identified by placing it in a separate envelope and marking the envelope with the bid number, the bidder's name, the words "proprietary data" and a statement of the basis upon which the material is being made exempt (cite to a specific exemption under the public Records Act, i.e. .,42.17.310(h),"valuable formulae, designs, drawings, and research data"). Marking the entire proposal or an entire section as proprietary will be neither accepted nor honored. If a request is made to view a vendor's proposal, Ecology will comply according to the Open Public Records Act, Chapter 42.17 RCW and the agency's applicable Washington Administrative Code (WAC). If any information is marked as proprietary or confidential in the proposal, Ecology may withhold the material from disclosure if it believes the material to be exempt. In any case, information designated by the bidder as proprietary or confidential will not be made available to a requester until the affected vendor has been given an opportunity to seek a court injunction against the requested disclosure.

Failure to label materials as required, or failure to respond in a timely manner after notice of request for public disclosure has been given, must be deemed a waiver by the vendor of any claim that such materials are, in fact, exempt. Ecology's sole responsibility must be limited to maintaining the above data in a secure area.

Ecology will consider a vendor's request for exemption from disclosure. However, Ecology will make a decision predicated upon chapter 42.17 RCW and chapter 143-06 of the Washington Administrative Code. Marking the entire proposal exempt from disclosure will not be honored. The vendor must be reasonable in designating information as confidential.

Reminder: You must also include a list in your Letter of Submittal of any portions of your Proposal which are marked "CONFIDENTIAL" or "PROPRIETARY".

1.13 Revisions to the RFP

In the event it becomes necessary to revise any part of this RFP, amendments will be published on the Ecology web site, at the following address: <http://www.ecy.wa.gov/services/contract/contract.html>

The published questions and answers from the Pre-Proposal Conference and any other pertinent information, including updates to the RFP, will be considered an amendment to the RFP and also placed on the web site. Vendors are responsible for periodically checking the website for amendments.

Ecology reserves the right to cancel or to reissue the RFP in whole or in part, prior to execution of a contract.

1.14 Vendor Complaints

A complaint may be made before a prospective vendor responds to a solicitation document if the prospective vendor believes that the document unduly constrains competition or contains inadequate or improper criteria. The written complaint must be made to the RFP Coordinator no later than the date of the Pre-Proposal Conference.

Ecology must immediately forward a copy of the complaint to the Department of Information Services' (DIS) Management and Oversight of Strategic Technologies Division (MOSTD). Ecology must also reply to the prospective vendor with its findings and if appropriate, a proposed solution, and advise DIS/MOSTD of its reply. If the prospective vendor rejects Ecology's proposed solution, DIS/MOSTD may direct modification of solicitation requirements or the schedule, direct withdrawal of the solicitation, or may take other steps that it finds appropriate. The DIS/MOSTD decision is final. No further administrative appeal is available.

1.15 Responsiveness

All proposals will be reviewed by the RFP Coordinator to determine compliance with administrative requirements and instructions specified in this RFP. **The vendor is specifically notified that failure to comply with any part of the RFP may result in rejection of the proposal as non-responsive.**

Ecology also reserves the right; however, at its sole discretion to waive minor administrative irregularities.

1.16 Proposal Evaluation Process and Criteria

1.16.1 Phase One Evaluation Process

Proposals will be evaluated by the NWADES Evaluation Team which is comprised of members from Ecology and local air agencies. Representatives from other governmental agencies may also be asked to serve in the evaluation process. All team members will have subject matter expertise. In addition, the Evaluation Team may choose to make use of the expertise of an outside consultant in an advisory role. The RFP Coordinator may contact the vendor for clarification of the responses.

All proposals will be reviewed for compliance with the mandatory elements as stated within the RFP. Any vendor proposal not in compliance with any of the mandatory requirements will be deemed non-responsive. Non-responsive proposals will be eliminated from further consideration.

1.16.1.1 Responsive Bids

All **responsive** vendor proposals will be evaluated. During the initial evaluation (Phase One), all responsive proposals will be awarded points according to Section 1.16.1.3 and Section 1.16.1.4.

Responsive bids must comply with all the mandatory elements. For the purpose of the RFP response, to satisfy a mandatory element, vendors must state that:

- 1) it's already part of the core system and is available when the product is installed or
- 2) it's not part of the core system but there are comparable alternatives (including customization) available to satisfy the requirement.

The evaluation team will score each response the vendor provides. Each individual requirement will be scored as either "exceeds requirement", meets requirement or "does not meet requirement". Points will be awarded accordingly. Vendor's receiving a "does not meet requirement" for any mandatory requirement, will be deemed "non-responsive" and may not continue in the evaluation process.

With respect to Section 3 only, if the vendor's system does not incorporate the mandatory requirement/functionality currently but the vendor is willing to be contractually obligated to custom develop the mandatory requirement/functionality within 6 months of signing a contract with Ecology the vendor will be deemed "responsive". The evaluation team will assign a score of 0 to the specific individual requirement that is not currently part of vendor's system; the vendor may continue in the evaluation process.

Responsive vendors with the highest Phase One scores will be selected as finalist vendors and proceed to Phase Two. The number of finalists selected will be at the discretion of the evaluation team but will consist of at least two vendors.

1.16.1.2 Non-Responsive Bids

All proposals will be reviewed for compliance with the mandatory elements as stated within the RFP. Any vendor proposal not in able to comply with all the mandatory elements in either of the methods describe above will be deemed non-responsive. Non-responsive proposals will be eliminated from further consideration.

1.16.1.3 Phase One Scoring

The following is a summary of possible points that may be earned during the first phase of the proposal evaluation process. A maximum of 1000 points are possible. The amount of points earned will be based upon the quality and thoroughness of each response:

<u>Elements</u>	<u>Percentage:</u>	<u>Maximum Possible Points:</u>
Mandatory	55%	550
Very Desirable	10%	100
Desirable	5%	50
Grand Total Cost	25%	250
Other Value-Added Services	5%	50

TOTAL	100%	1000
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Mandatory Elements: Points will be earned based on how well the vendor meets the individual requirements. Individual mandatory elements are worth a maximum of 5 points each and will be added to produce an aggregate total. The aggregate point total will then be weighted such that the mandatory elements comprise 55% of the total possible phase one points. A failure to meet a mandatory requirement will result in a “non responsive” designation. All proposals deemed non-responsive will be eliminated from further consideration.

Very Desirable Elements: Points will be earned based on how well the vendor meets the individual elements. Individual very desirable elements are worth a maximum of 5 points each and will be added to produce an aggregate total. The aggregate point total will be weighted such that the very desirable elements comprise 10% of the total possible phase one points.

Desirable Elements: Points will be earned based on how well the vendor meets the individual elements. Individual desirable elements are worth a maximum of 5 points each and will be added to produce an aggregate total. The aggregate point total will be weighted such that the desirable elements comprise 5% of the total possible phase one points.

Grand Total Cost: The evaluation of each vendor’s cost proposal will be conducted using the following formula (including 6 years of ongoing cost of ownership):

$$\frac{\text{Lowest Responsive Offer Grand Total Cost}}{250} = \text{Points Award}$$

This vendor’s Grand Total Cost

Other Value-Added Services: A maximum of 50 points may be earned for unforeseen options not identified in the system requirements that add to the overall functionality and usability of the system.

1.16.2 Phase Two Evaluation Process

During Phase Two, the NWADES Evaluation Team will evaluate finalist vendors’ references and financial information (i.e., Section 5 elements) and vendors will be asked to provide a “live”, hands-on demonstration of their product(s). Points earned during phase two will be added to the Phase One points to calculate final scores

1.16.2.1 Phase Two Scoring

The vendors receiving the highest phase one scores will be deemed finalist vendors. Ecology reserves the right to select the number of finalist vendors. All other vendors will be eliminated from further consideration. The scoring for Phase 2 will be based upon the elements in Section 5 and the vendor’s demonstration of its products. A total of 1000 points may be earned during phase 2.

	<u>Percentage:</u>	<u>Maximum Possible Points:</u>
References	50%	500

Demonstration	50%	500
TOTAL	100%	1000

- **References:** A maximum of 500 points may be earned based up the Vendor's history, financial information and an evaluation of the vendor's work for previous clients receiving similar services and products to those proposed by the vendor for this project. Ecology reserves the right to talk to other entities not specifically listed as references by vendors in their RFP responses.
- **Demonstration:** Finalist vendors will be asked to provide a "live" hands-on demonstration of its products. Vendor demonstrations will be evaluated to determine whether the vendor's products are capable of delivering the expected features and full functionality designated in the vendor's RFP responses. A maximum of 500 points may be earned. Points will be earned based upon how well the vendor's services and products meet the requirements.

1.16.2.2 Final Score

Final scores will be calculated for finalist vendors only. Final scores will be calculated by adding the points earned from phase one to the points earned from phase two. The first and second phases are worth an equal amount of points.

Phase One	<u>Percentage Points:</u>	<u>Maximum Possible Points:</u>
Mandatory elements	55%	550
Very Desirable Elements	10%	100
Desirable Elements	5%	50
Grand Total Cost	25%	250
Other Value Added Services	5%	50
PHASE ONE TOTAL	100%	1000
Phase Two (finalist vendors only)	<u>Percentage Points:</u>	<u>Maximum Possible Points:</u>
References	50%	500
Demonstration	50%	500
PHASE TWO TOTAL	100%	1000
Final Score (finalist vendors only)		
PHASE ONE TOTAL	50%	1000
PHASE TWO TOTAL	50%	1000

FINAL SCORE	100%	2000
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1.17 Selection of Finalists

The NWADES Project Team will select and the RFP Coordinator will notify the finalist vendors according to the schedule found in [Section 1.4](#). Only finalists will be invited to participate in the subsequent steps of the procurement. The schedule for the demonstrations is also found in Section 1.4.

1.18 Product Demonstrations

Finalist vendors will be required to provide a “live”, hands-on demonstration of the product(s) being proposed. This requirement must be met before Ecology awards the bid. Providing a “demo” of screen shots will not suffice. Ecology must be able to access the vendor’s demonstration system from the Ecology building in Lacey, WA. The vendor may be asked to demonstrate the capabilities of the vendors system as described in the RFP submission. The functionality demonstrated will be compared to the vendor’s response to the RFP. Any discrepancies between the stated functionality in the response and the actual functionality revealed during the demonstration may be grounds for elimination.

The Project Manager proposed by the vendor must be in attendance.

Any special equipment configuration requirements or other vendor needs must be stated in the vendor’s proposal. Each vendor will be given a maximum of one (1) hours for setup and each presentation will be limited to four (4) hours in duration. Presentation times will be assigned by Ecology.

1.19 Selection of an Apparently Successful Vendor

Following Phase 2 of the selection process, the NWADES Project Team will select an apparently successful vendor, based on the most advantageous proposal. The most advantageous proposal may or may not have received the most points. In the event of tie scores among the finalists after Phase 2, Ecology reserves the right to declare a winning vendor based on the most advantageous proposal overall.

The RFP Coordinator will notify the apparently successful vendor via telephone and the other vendors from Phase 2 via e-mail. Vendors may request a debriefing with the RFP Coordinator following the announcement of an apparent successful vendor. If an unsuccessful vendor intends to file a protest, a debriefing with the RFP Coordinator must be held before a protest can be submitted.

1.20 Protests

1.20.1 Grounds for Protest

Protests may be made after Ecology announces the apparently successful vendor and after the protesting vendor has had a debriefing conference with Ecology. Protests may be made on the following grounds only:

- Arithmetic errors were made in computing the score.
- The agency failed to follow procedures established in the solicitation document, the IT Investment Policy, the IT Investment Standards, or applicable state or federal laws or regulations.

- There was bias, discrimination, or conflict of interest on the part of an evaluator.

1.20.2 Protest Process

Protests must be submitted in writing to the RFP Coordinator. The protest letter must be signed by a person authorized to bind the vendor to a contractual relationship. Ecology must receive the written protest within five business days after the debriefing conference and must, in turn, immediately notify Department of Information Services (DIS) of receipt of the protest. It must also postpone further steps in the acquisition process until the protest has been resolved.

Individuals not involved in the protested acquisition will objectively review the written protest material submitted by the vendor and all other relevant facts known to the agency. The agency must deliver its written decision to the protesting vendor within five business days after receiving the protest, unless more time is needed. The protesting vendor will be notified if additional time is necessary.

If the protesting vendor is not satisfied with the agency's decision, it may appeal. Appeal is made to DIS. Written notice of appeal to DIS must be received by DIS within five business days after the vendor receives notification of the agency's decision.

In conducting its review, DIS will consider all available relevant facts. DIS will resolve the appeal in one of the following ways:

- Find that the protest lacks merit and upholding the agency's action.
- Find only technical or harmless errors in the agency's acquisition process, determining the agency to be in substantial compliance, and rejecting the protest; or
- Find merit in the protest and provide options to the agency, including:
 - Correcting errors and reevaluating all proposals;
 - Reissuing the solicitation document; or
 - Making other findings and determining other courses of action as appropriate.

DIS will issue a written decision within five business days after receipt of the notice of appeal, unless more time is needed. The protesting vendor will be notified if additional time is necessary. DIS' determination is final; no further administrative appeal is available.

1.20.3 Form and Content

A written protest must contain the facts and arguments upon which the protest is based and must be signed by a person authorized to bind the vendor to a contractual relationship. At a minimum, this must include:

- The name of the protesting vendor, its mailing address and phone number, and the name of the individual responsible for submission of the protest.
- Information about the acquisition and the acquisition method and name of the issuing agency.
- Specific and complete statement of the agency action(s) protested.
- Specific reference to the grounds for the protest.
- Description of the relief or corrective action requested.
- A copy of the issuing agency's written decision on the protest, for appeals to DIS.

1.21 No Obligation to Contract

The procurement in no manner obligates the State of Washington or any of its agencies to the eventual rental, lease, purchase, etc., of any equipment, software, or services offered until a valid written contract is awarded and approved by appropriate authorities.

1.22 Commitment of Funds

The Project Executive Sponsor or designee is the only individual who may legally commit Ecology to the expenditures of funds for a contract resulting from this RFP. No cost chargeable to the proposed contract may be incurred before receipt of a fully executed contract.

1.23 Errors in Proposals

Ecology will not be liable for any errors in vendor proposals. Vendors will not be allowed to alter the content of the proposal after the deadline for proposal submission except as requested by Ecology in a subsequent amendment.

1.24 Withdrawal or Amendment of Proposals

Vendors may withdraw or amend a proposal that has been submitted at any time up to the proposal due date and time shown in [Section 1.4](#). To withdraw a proposal, a vendor must submit to the RFP Coordinator, a written notice signed by an authorized representative of the vendor. After withdrawing a previously submitted proposal, the vendor may submit another proposal **up to the proposal due date and time** shown in [Section 1.4](#).

1.25 Grounds for Disqualification

The vendor's proposal must respond directly to RFP instructions in Sections 2 through 6. Failure to meet the requirements of the RFP is grounds for disqualification and may be established by any of the following conditions:

1. The vendor fails to satisfy all mandatory elements at the time the proposal is submitted with the exception of Section 3, Technical Elements, in which the vendor will have an additional six months from the award of contract in which to satisfy Section 3 mandatory elements.
2. The vendor fails to include information requested or necessary to substantiate that a given requirement has been met. An answer of “**we understand this requirement and will comply**” is not acceptable.
3. The vendor presents the information requested by this RFP in a manner inconsistent with the instructions stated in any portion of this acquisition document.
4. The vendor's inability to comply with one or more of the requirements as verified through customer references or other investigative practices.

1.26 Termination

This RFP may be canceled at any time and any and all proposals may be rejected in whole or in part when the Agency determines such action to be in the best interest of the State of Washington

1.27 Sufficient Appropriation

Any contract awarded as a result of the RFP process may be terminated if sufficient appropriations or authorizations do not exist. Sending written notice to the vendor will effect such termination.

Ecology's decision as to whether sufficient appropriations and authorizations are available will be accepted by the vendor as final.

1.28 Contract Award

This contract shall be awarded to the vendor whose proposal is most advantageous, taking into consideration the evaluation factors set forth in [Section 1.16](#). The most advantageous proposal may or may not have received the most points.

The contract will be finalized with the most advantageous vendor according to the schedule found in [Section 1.4](#). In the event that mutually agreeable terms cannot be reached within the time specified, the Agency reserves the right to finalize a contract with the next most advantageous vendor without undertaking a new procurement process.

1.29 Proposal Offer Firm

Responses to this RFP, including proposal prices, will be considered firm for ninety (90) days after the due date for receipt of proposals.

1.30 Incorporation of Documents in Contract

This solicitation document and some, or all, of the vendor's proposal will be incorporated into any resulting Contracts.

1.31 Acceptance Period

Upon completion of acceptance testing (see [Section 4.8](#)), Ecology will run the system (data loggers and central system) for one (1) calendar month to ensure that the system meets the functional and performance requirements stated in the RFP. After the one (1) calendar month test period, if the system conforms to the test requirements and meets the mandatory elements specified in this RFP, the system will be deemed accepted, and a letter of acceptance will be issued to the vendor by Ecology.

1.32 Insurance Coverage

The vendor is required to provide Ecology with a certificate(s) of insurance executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements.

1.33 Workers' Compensation Coverage

The vendor will at all times comply with all applicable workers' compensation, occupational disease, and occupational health and safety laws, statutes, and regulations to the full extent applicable. The State of Washington will not be held responsible in any way for claims filed by the vendor or their employees for services performed under the terms of this contract.

1.34 Legal Review

Ecology requires that all vendors agree to be bound by the General Requirements contained in this RFP. Any vendor concerns must be promptly brought to the attention of the RFP Coordinator.

1.35 Governing Law

This procurement and any agreement with vendors that may result shall be governed by the laws of the State of Washington.

1.36 Contract Terms and Conditions

The contract between Ecology and the vendor will follow the format specified by the Ecology and contain the terms and conditions set forth in [Appendix E](#), “Model Contract.” However, the Ecology reserves the right to negotiate with a successful vendor provisions in addition to those contained in this RFP. The contents of this RFP, as revised and/or supplemented, and the successful vendor’s proposal will be incorporated into and become part of the contract.

Should a vendor object to any of the Agency’s terms and conditions, as contained in this Section or in Appendix E, that vendor may propose specific alternative language, provided the objectionable terms and conditions aren’t required by the State of Washington? The Agency may or may not accept the alternative language. **General references to the vendor terms and conditions or attempts at complete substitutions are not acceptable to Ecology and will result in disqualification of the vendor’s proposal.**

Vendors must provide a brief discussion of the purpose and impact, if any, of each proposed changed followed by the specific proposed alternate wording.

1.37 Contract Deviations

Any additional terms and conditions that may be the subject of negotiation will be discussed only between Ecology and the selected vendor and shall not be deemed an opportunity to amend the vendor’s proposal.

1.38 Changes in Vendor Representatives

Ecology reserves the right to require a change in vendor representatives if the assigned representatives are not, in the opinion of the Agency, meeting its needs adequately.

1.39 Vendor Payments

Payments made to the successful vendor will be based on deliverables. State of Washington laws prohibit payment for products or services not yet delivered. Ecology will hold back thirty (30) percent of the total cost of the project until the project is complete and the new system is “accepted” (see [Section 1.31](#) and [Section 4.8](#)).

1.40 Definition of Terms

[Appendix A](#) includes definition of terms used in this document.

2 Administrative Section

Section 2 elements that are followed by the letter “M” in parentheses are mandatory elements and must be addressed. Vendors that do not address these elements will be eliminated from further consideration. Section 2 elements marked “V” or “D”, in parentheses are not required, but should be addressed by the vendor. The NWADES Evaluation Team will use the information provided to aide in the evaluation process.

Section Scoring:

2.1 Mandatory Elements Must Be Addressed (M)

Sections 2-6 contain the administrative, technical, project management and implementation, pricing and other elements for this proposal. They are prioritized in terms of “mandatory” (M), “very desirable” (V), and “desirable” (D).

Vendors intending to compete for this contract must satisfy **all mandatory elements** in Sections 2 through 6. With the exception of Section 3, all mandatory elements must be satisfied by the date and time that proposals are due that is provided in the schedule in [Section 1.4](#). Vendors will have an additional 6 months from the date of the award of contract to satisfy the mandatory elements of Section 3. **Proposals that do not satisfy the mandatory elements per the specific instructions listed above and in Sections 2 through 6 will be eliminated from further consideration.**

2.2 Notice of Intent to Bid (V)

Potential bidders should notify the RFP Coordinator when they receive a copy of the RFP. The notification of intent to bid is not binding, and will result in the vendor being included in an e-mail distribution list for communication purposes. Vendors choosing not to notify the RFP Coordinator of their intent to bid run the risk of missing vital information regarding this procurement. Vendors must include the following information in their note:

1. RFP title;
2. Indication of whether or not your firm will be submitting a response (yes/no);
3. Name of Primary Vendor;
4. Primary Vendor Address;
5. Primary Contact name and title;
6. Primary Vendor Address;
7. Primary Vendor Contact name and title;
8. Primary Vendor Contact Telephone number;
9. Primary Vendor Fax number;
10. Primary Vendor Contact E-mail address;
11. Primary Vendor Company web site (URL);

If a vendor chooses not to submit a proposal, please notify the RFP Coordinator as to why.

2.3 Federal Requirements

The project described in this RFP is funded through an EPA National Environmental Information Exchange Network grant. The following two elements are administrative conditions included in the grant award to Ecology.

2.3.1 Certification Regarding Suspension, Debarment, and other Responsibility Matters (M)

Federal Executive Order 12549 provides that Executive departments and agencies shall participate in a government-wide system for monitoring suspended, debarred, and excluded parties. These departments and agencies have further passed this requirement onto their recipients and have provided pertinent regulations in the Code of Federal Regulations at Subpart C of 40 CFR Part 32. The vendor, by responding to this RFP, certifies that they are not suspended, debarred or otherwise excluded from contracting with the federal government, or from receiving contracts paid for with federal funds. Vendors are also responsible for further requiring this certification of any sub-contractors that may be included in their response to this RFP. The web site for checking suspended, debarred or excluded parties is <http://epls.arnet.gov>.

Vendors must respond as to their status regarding this element as well as the status of any sub-contractors they intend to include in a response to this RFP.

Response:

2.3.2 Minority Business Enterprises (MBE) and Women's Business Enterprises (WBE) Goals (M)

Ecology must comply with the requirements of EPA's Program for Utilization of Small, Minority, and Women's Business Enterprises in procurement under the conditions for the EPA grant funding this project. Vendors must ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for subcontracts for supplies, construction, equipment, or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women and Historically Black Colleges and Universities. The "fair share" goals and objectives are as follows:

	<u>MBE</u>	<u>WBE</u>
Construction	0%	0%
Supplies	8%	4%
Services	10%	4%
Equipment	8%	4%

The vendor must state in its proposal, the applicable "fair share" objectives the vendor attempted to achieve as well as including this requirement in bid documents provided to potential subcontractors. If pursuing these "fair share" objectives is not applicable due to the nature of the vendor's products and services proposed, the vendor must state this.

Response:

2.4 Additional Certifications and Assurances (M)

The vendor's legally responsible party must agree with and signed and date the Certifications and Assurances document (Appendix B).

Response:

2.5 Escrow Beneficiary (M)

Code from all core pieces of the system will be placed in escrow and Ecology will become an escrow beneficiary upon execution of licensing agreements or a contract and receipt of core pieces of the system. Core pieces include database and application software developed by the vendor or vendor's subcontractor/partner; this includes both central and site software. Failure to agree to this requirement will mean the vendor's submittal is "non responsive". Non-responsive submittals will not be considered. The vendor and vendor's subcontractor/partner must:

- Provide proof that Ecology is named as beneficiary for a 10 year period
- Maintain Escrow Beneficiary for 10 years after date of purchase

Response:

2.6 Subcontractors and Third Party Vendors (M)

Ecology will accept proposals that include third party software or include work completed by subcontractors only if the proposing vendor agrees to act as Primary Contractor and guarantor for all products proposed in the bid document. The vendor's response must disclose the use of any third party software and subcontractors and indicate the vendor's willingness to assume primary contractor responsibility.

Response:

2.7 Proposal Contents (M)

Proposals must provide information in the same order as presented in this document with the same headings and include the following:

1. Letter of Submittal
2. Vendor, Subcontractor and Third Party Information
3. Certificates and Assurances
4. Proposals (Vendor response to Sections 2 through 6)

2.7.1 Letter of Submittal (M)

The Letter of Submittal must be signed by a person authorized to legally bind the vendor to a contractual relationship and must contain all the requirements listed below:

1. Name, address, principal place of business, telephone number, and fax/email address of the

- contact person for this proposal.
2. Federal Employer Tax Identification number or Social Security Number
 3. Verification that the proposed solution meets the Mandatory elements identified in Section 2 through 6.
 4. The narrative responses to Sections 2 through 6.
 5. A detailed list of all materials and enclosures included in the proposal.
 6. A detailed list of any portions of the proposal marked “Proprietary” or “Confidential”.
 7. Any proposed alternate contract language
 8. Proof of Liability Insurance
 9. Letter of Credit
 10. Acknowledgement that the vendor has reviewed the Ecology website for RFP amendments.

Response:

2.8 Work Conducted outside of the United States (M)

If the primary vendor or subcontractors will be doing any work pertaining to this contract outside of the United States, Ecology must get approval from EPA’s Office of International Affairs, even if the benefit of the work is entirely domestic.

The vendor’s response must state:

- a) What work will occur outside of the United States
- b) What country the work will be completed in
- c) An estimate of the percentage of work being conducted outside the United States

Response:

2.9 RFP Question and Answer Process

Ecology will hold a Pre-proposal conference according to the schedule found in [Section 1.4.](#) . Vendor attendance is voluntary. Vendors may send up to two representatives to the conference.

Additionally, Ecology will allow written requests for clarification of the RFP. All questions must be submitted in writing by the deadline specified in Section 1.4. Ecology will delete vendor names from the text of questions and answers being sent. Submit questions in writing by e-mail to Kathy Sundberg (see [Section 1.6](#)). No telephone questions will be accepted or considered. Questions must be submitted in the following format. **Deviations from this format will not be accepted.**

1. Section number;
2. Paragraph number;
3. Text of passage being questioned;
4. Question.

2.10 Submission of Proposal (M)

Vendors must provide written proposals to the RFP. Specifically, vendors must submit their responses in separately bound proposal volumes structured as follows:

Proposal Section	Corresponds to:	No. of Bound Documents
Letter of Submittal		1 unbound original
Administrative Elements	Section 2	1 copy plus 1 signed original
Technical Elements	Section 3	7 copies plus 1 signed original
Project Management and Implementation Support Proposal	Section 4	6 copies plus 1 signed originals
Vendor History, and References	Sections 5.1 and 5.3	5 copies plus 1 signed originals
Financial Information	Section 5.2	5 copies plus 1 signed originals
Cost Proposal	Section 6	1 copy and 1 signed original in a sealed and labeled envelope
Letter of Submittal, Technical, Functional, Project Management and Implementation Support, and Cost Proposals	Sections 2-6	1 CD-RW CD-ROM with MS-Word Document or Adobe Acrobat file

Additionally, vendors must:

1. Prepare the proposal in a standard 8 ½" x 11" white paper format; however, 11" x 14" is permissible for larger format charts, spreadsheets, etc.
2. Clearly mark each proposal, identifying whether it is the "Administrative Proposal", "Technical Proposal", "Project Management/Implementation Support Proposal", "Cost Proposal" or "Vendor History, References, and Financial Information".
3. Bind each proposal separately. Use three ring binders, spiral bindings or staples, etc.
4. Present pricing information only in the Cost Proposal. Ecology will disqualify any vendor proposal that fails to adhere to these instructions.
5. Enclose the required Appendix materials with the response to the RFP Section where the item is requested.
6. Submit one (1) electronic copy of all required information on a CD-RW CD-ROM in Microsoft Word 2003 or higher.

The proposal is to be sent to the RFP Coordinator at the address noted in [Section 1.6](#). The packaging must be clearly marked to the attention of the RFP Coordinator.

Vendors mailing proposals must allow normal mail delivery time to ensure timely receipt of their proposals by the RFP Coordinator. Vendors assume the risk for the method of delivery chosen. Ecology assumes no responsibility for delays caused by any delivery service. **Proposals will not be accepted if transmitted using electronic media such as facsimile transmission or email.**

Late proposals will not be accepted and will be eliminated from further consideration. All proposals and any accompanying documentation become the property of Ecology and will not be returned.

3 Technical Elements Section

The following elements can be prioritized in three ways:

- **(M) = Mandatory**

*This is a feature that Ecology and its partners have identified as a “must have” in order to accomplish their mission. Vendors intending to compete for this contract must satisfy **all Section 3 mandatory elements** within six (6) months of the awarding of the contract. For the purpose of the RFP response, to satisfy a mandatory element, vendors must state that*

1) it’s already part of the core system and is available when the product is installed or

2) it’s not part of the core system but there are comparable alternatives (including customization) available to satisfy the requirement.

Proposals that do not satisfy the mandatory elements will not be evaluated further.

- **(V) = Very Desirable**

This is a feature that Ecology and its partners have identified as vitally important to successfully accomplishing their mission. In order to “comply” with or satisfy these elements, they must be available by the date and time proposals are due as provided in the schedule in [Section 1.4](#).

- **(D) = Desirable**

This is a feature that Ecology and its partners believe would be very helpful in accomplishing their mission. In order to “comply: with or satisfy these elements, they must be available

Directions for completing Section 3

Most of the Technical and Management Elements have a priority rating associated with them. (M = Mandatory, V = Very Desirable, D = Desirable). For each element identified in Sections 3, complete the requested information as follows:

1. **Comply:** Insert an “X” if the vendor’s offering currently complies with the requirement or will comply with the 6 months of the contract award. Leave **blank** if the vendor’s offering does not comply with the requirement.
2. Vendors must also indicate how they will comply.
 - a. **Core:** Insert an “X” if the vendor provides this element as a current function of the system.
 - b. **Custom:** Insert an “X” if this element must be met through custom development or some other comparable alternative.
 - c. **3rd Party:** Insert an “X” if the vendor proposes to meet this element using a 3rd party system.
3. **Response:** Provide a narrative description of the vendor’s approach to meeting this requirement (i.e., describe how the vendor will provide what is required to Ecology). An answer of “we understand and will comply” will, generally, receive no points. Vendors may attach and clearly reference additional information not to include marketing materials.

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
### Sample Requirement Text (M)				
(2) Response:				

3.1 General Requirements

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.1.1 Total Solution (M)				
The vendor must propose a complete design solution, including but not limited to: data logging, servers, hardware design specifications, application software, communication software, and documentation. Provide a brief overview of your proposal below.				
Response:				
3.1.2 Ecology to Host System (M)				
The vendor must propose a solution whereby Ecology hosts the entire data acquisition system at its location in Lacey, WA. Describe the technical infrastructure (network, servers, etc) on which you recommend implementing your proposed solution and include a diagram showing a recommended high-level infrastructure design.				
Response:				
3.1.3 Browser-based applications (M)				
The vendor's applications must be accessible through the Internet, using https://. Client-Server applications are not allowed. Describe how your system meets this requirement.				
Response:				
3.1.4 Acceptable Programming Languages (M)				
Applications must be written using the Microsoft .NET Framework. C#.NET and ASP.NET are preferred; VB.NET is acceptable. Beta versions must not be used. Describe the software/application development framework you will use that satisfies this requirement.				
Response:				
3.1.5 Acceptable Operating Systems (M)				
All central system applications must run under Windows 2003 Server and Internet Information				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Services 6.0, with the latest Service Pack installed. Workstation PCs must run Microsoft Windows XP Professional with latest Service Pack installed. Describe how you will meet this requirement.				
Response:				
3.1.6 Acceptable Databases (M)				
Ecology's database management system standard is Microsoft SQL Server 2000. The vendor solution must adhere to this standard. Describe how you will meet this requirement.				
Response:				
3.1.7 Third-Party Software (M)				
Third-party software such as Microsoft Office software, communications software, etc. is allowed and must be identified below. Depending on the type of third party software that is required, Ecology will either extend existing licenses or purchase new ones to support the system. It is possible that some third-party software will be integral to the system and the vendor must provide the software at installation in order for the system to be functional. Ecology reserves the right not to purchase third-party software from this contract. Describe all third-party software required by your system and the role it plays in your implementation.				
Response:				
3.1.8 Application and Database Architecture-Modifications by Ecology (M)				
Ecology must be allowed to make system modifications (code and database) and configuration changes. Describe how you will meet this requirement.				
Response:				
3.1.9 System Configuration (M)				
The central system configuration must be able table driven (i.e., lookup tables, menu driven, etc.) Describe how the central system administrator would configure the system.				
Response:				

3.2 Central System-General

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.2.1 Central System-Common Look and Feel-Graphical User Interface (D)				
The system should provide for and support a consistent graphical user interface across all portions of the application components and provide a common look and feel and navigation across all modules. Describe your system's interfaces and the extent to which they have a common look and feel. Also, describe any modules or parts of the system that are not consistent with any common look and feel you have implemented.				
Response:				
3.2.2 Central System-Common Look and Feel-Ecology Branding (D)				
The system should be "brandable" with Ecology logo, colors, etc. Describe the branding options available with your system.				
Response:				
3.2.3 Central System-Site Information (M)				
The system must provide the ability to enter, store, and edit site and parameter information in accordance with EPA AQS required fields. Describe how you propose to implement this requirement. List all data elements you include in your system that implement this requirement.				
Response:				
3.2.4 Central System-Screen Resolution for Visual Displays (M)				
To eliminate the need for horizontal scrolling, the standard screen resolution of all online displays must be 1024 x768 pixels or higher. Describe your implementation of this requirement. Are there any exceptions?				
Response:				
3.2.5 Central System-Screen Resolution for Online Reports (M)				
To eliminate the need for horizontal scrolling, the standard screen resolution for online reports must				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
be 1024 x 768 pixels or higher. Describe your implementation of this requirement. Are there any exceptions?				
Response:				
3.2.6 Central System-Messages to Listserv (D)				
When a defined threshold for a pollutant is exceeded, the system should be capable of sending a message to users or members of a listserv. Describe your implementation of this requirement.				
Response:				
3.2.7 Central System-Time Synchronization (M)				
The system must automatically synchronize its central system clock with NIST Internet time. The central system must automatically update data loggers and PCs at the remote sites to ensure that all data is properly time stamped. The central system time must always be in Pacific Standard Time. Describe your implementation of this requirement.				
Response:				
3.2.8 Central System-External Agencies Managing Data (M)				
Ecology may want to partner with other air quality agencies outside the State of Washington. This would involve the storage and collection of data for the external agency. While Ecology may host the hardware and software, external agencies may want to manage and report their own data to AQS. In such a case, Ecology would want to view only Washington State data. Describe how your system meets/will meet this requirement.				
Response:				
3.2.9 System-Hardware Specifications (M)				
The vendor must provide Ecology with detailed hardware specifications for each hardware component of the system. Ecology will purchase and install hardware that meets or exceeds these specifications. The specifications provided must include processor type and speed, size of storage devices, any boards, communications ports, graphic cards, etc., required for optimal implementation of the system. All cabling, monitors, multi-media equipment, drives, etc., necessary for a complete and optimized system must be specified. Hardware components include database servers, application servers, and polling servers. The hardware must be sufficient to support multiple users accessing the system both locally and remotely. At a minimum, the system must support 25 users simultaneously, without performance degradation. The exact hardware configuration is somewhat dependent on the final system design. The all server hardware will be installed at the Ecology Headquarters Building at 300 Desmond Drive SE, Lacey, Washington.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Response:				

3.3 Data and Database Administration

3.3.1 Data Dictionary (M)				
A data dictionary listing the name and <u>brief</u> description of all data elements required to implement Ecology's mandatory elements must submitted with your proposal. If the name of the data element is sufficiently descriptive, the brief description is not required. To receive all possible points on this element the vendor's response much be organized so that Ecology can easily determine if required data elements are present. (i.e., an alphabetical listing of data elements is not as complete a response as a listing of data element by table).				
Response:				
3.3.2 Data Dictionary (M)				
The vendor's response must include an example of the vendor's data dictionary.				
Response:				
3.3.3 Vendor Database and AQS XML Schema Crosswalk (M)				
The vendor's response must include a complete crosswalk between the vendor's database and the AQS XML schema.				
Response:				
3.3.4 Central System-Database Integrity (M)				
The vendor's response must describe how data integrity is maintained through the applications and databases (i.e., referential integrity, triggers, stored procedures, etc).				
Response:				
3.3.5 EDSC Data Standards (M)				
Any data element included in your system, must comply with the Environmental Standard Council's (EDSC) data standards which are published at http://www.envdatastandards.net/section/standards/ . The following standards are applicable: <ul style="list-style-type: none"> • Representation of Date and Time Data Standard-Version 2 or later • Method Data Standard-Version 1 or later • Measure Standard-Version 1 or later • Attached Binary Object Data Standard - Version 1 or later 				

<ul style="list-style-type: none"> • Quality Assurance and Quality Control Data Standard-Version 1 or later • Latitude/Longitude Data Standard-Version 2.0f or later • Chemical Identification Data Standard-Version 2.0 or later • Environmental Sampling, Analysis and Results-Final draft or latest version <p>Describe your company's familiarity with these data standards and describe how they are incorporated into the products you're proposing for Ecology.</p>				
Response:				
<hr/>				
3.3.6 Database Administration-Edit Routines (M)				
System must contain appropriate input masks or edits to assure data accuracy and integrity. Describe how your system implements this requirement.				
Response				
<hr/>				
3.3.7 Database Administration-Required Fields (M)				
The system administrator must have the ability to designate certain fields as required and to cause an error message when data is not supplied. Describe how you will implement this requirement.				
Response				
<hr/>				
3.3.8 Installing Vendor Product in Test and Development Environment (M)				
The vendor must allow Ecology to install the vendor central system database and application in Ecology's development and testing environments for the purpose of implementing and testing user developed products created with 3 rd party tools such as Crystal Enterprise or ArcGIS and for implementing Ecology modifications (i.e., linking in new tables that satisfy requirements of other business areas not covered by this acquisition). Your proposal must be cost effective. Describe your approach below.				
Response				
<hr/>				
3.3.9 Establishing a Test Environment (M)				
The vendor must describe its proposed solution's support for data loading and creation in a non-production environment (i.e., copying data from production into a staging environment, creating testing data in a test environment, etc.). Does your proposed solution provide utilities for copying selection of records to a test environment (i.e., query-selected data based on specific parameters, sites, date ranges, etc.)?				
Response:				

3.4 Central System-Data Repository

3.4.1 Central System-Data Repository-Accessible by Third-Party Software (M)				
The production database and tables must be accessible for use by third-party products such as Crystal Reports, ArcGIS and MS-C#.NET. The vendor's response must				
Response:				
3.4.2 Central System-Site Capacity-500 Site minimum (M)				
The system must be able to retrieve and store hourly data from a minimum of 500 sites with an average of 5 parameters per site for a period of 25 years. The vendor's response must include capacity information for the central system.				
Response:				
3.4.3 Central System-Capacity-Polling (M)				
If the polling system has limitations, the vendor must describe the limitations below. If there are none, the vendor should indicate that as well.				
Response:				
3.4.4 Central System-Data Repository-RAW Dataset-General (M)				
The central system must contain a RAW file system/database. This data must not be edited or deleted by any user. No users should be able to add records to the RAW Dataset. It should be accessible only to administrators with the highest security classification. These administrators may only copy/export the data. Its purpose is to be a permanent record of one hour and one minute data collected at each station. It may be stored in a flat file system to optimize data collection. Describe your company's implementation of this requirement.				
Response:				
3.4.5 Central System-Data Repository-RAW Dataset-Backup and Recovery (M)				
This dataset must be accessible for file backup. It must also be restorable by an administrator with the highest security clearance. Describe your company's implementation of this requirement.				
Response:				
3.4.6 Central System-Data Repository-RAW Database-Export to Relational Database (M)				
The data collected in the RAW database/file system must automatically (transparent to all users) be appended to the EDIT database. The EDIT database must be a Microsoft 2000 SQL database.				

Describe your company's implementation of this requirement.				
Response:				
<hr/>				
3.4.7 Central System-Data Repository-RAW Database-Export-Error Logging (M)				
The vendor's solution must incorporate a mechanism to detect whether the EDIT database has been updated correctly. Error messages/logs must be generated in the event that the update did not succeed. In the event the update did not succeed, the vendor's solution must have a mechanism to apply the missing data from the RAW file to the EDIT database. Describe your company's implementation of this requirement.				
Response:				
<hr/>				
3.4.8 Central System-Data Repository-EDIT Database (M)				
The EDIT database must store 1-minute and 1-hour averages. The EDIT database must allow users, with the proper security access, to edit the data. The purpose of the EDIT database is to be a permanent record of data that has been judged valid. Describe your company's implementation of this requirement.				
Response:				
<hr/>				
3.4.9 Central System-Data Repository-EDIT Database-Editing data (M)				
Hourly data in the EDIT database must never be deleted. Describe your company's implementation of this requirement.				
Response:				
<hr/>				
3.4.10 Central System-Data Repository-EDIT Database - Invalid Data (M)				
Data flagged as invalid must be excluded from all reports, calculations, queries and summaries, etc., as appropriate. Describe your company's implementation of this requirement.				
Response:				
<hr/>				
3.4.11 Central System-Data Repository-EDIT Database - 1-Minute Data Archive (V)				
The system must allow a user to archive 1-minute data from the EDIT database on an as-needed basis in order to manage the EDIT database size. Describe your implementation of this requirement.				
Response:				

3.5 Central System-Backup, Recovery and Security

3.5.1 Central System-Continuing Operation during Backups (M)				
System must allow for continued use of the system, including user transactions and automated polling, during backups. Describe your company's implementation of this requirement.				
Response:				
3.5.2 Central System-Data Recovery (M)				
The vendor must describe its solution's support of point-in-time recovery (e.g. system goes down or a monitoring site goes down).				
Response:				
3.5.3 Central System-Partially Completed Transactions during Outage (M)				
The vendor's proposal must describe its solution's process for dealing with transactions that are partially completed during system failure (i.e., do they complete or are they rolled back on system restore?)				
Response:				
3.5.4 Central System-Administrative Log Off of Users (D)				
The system should have the ability to administratively log off and lock out all users if unscheduled system maintenance is required. Describe your implementation of this requirement.				
Response:				
3.5.5 Central System-Simultaneous Access to Records by Multiple Users (M)				
The vendor's proposal must describe how the proposed solution protects records from multiple simultaneous user access.				
Response:				
Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3rd Party
3.5.6 Central System-Security-Access Rights (M)				
Access to the system must incorporate user authentication and must function within the security framework defined by the State of Washington. See also				

http://techmall.dis.wa.gov/default_security.aspx Describe your company's approach and implementation of this requirement.				
Response:				
<hr/>				
3.5.7 Security-Passwords-Hardened (M)				
<p>Ecology Security Policy 11-52 requires the use of complex or hardened passwords. For the purpose of this acquisition, the policy applies to the central system (database and all applications) and to the station data loggers (whether they are PC-based or not).</p> <ul style="list-style-type: none"> • Passwords must be at least 8 characters in length. • Passwords must contain at least 1 special character (such as &, =, or an extended ASCII set character) and 2 of the following 3 types of characters: upper case, lower case, numeric. • Passwords may not contain 3 or more consecutive characters from the individual's logon ID or full name. <p>Describe your company's implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.8 Security-Groups and Roles (M)				
<p>The vendor must provide a system that allows users to be assigned to various groups and/or roles. Users will be assigned different levels of system access (system administrator, editor, reviewer, etc.) based upon their assigned group and/or role. CRUD (create, read, update, delete) rights must be defined for each role/group, for each function. Describe your company's implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.9 Security-System Administrator (M)				
<p>Only the system administrator with the highest security rating has the ability to limit or grant access rights to roles, groups, or individual users. Available options for users must be based on these access rights. Describe your company's implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.10 Security-Authorized User Access (M)				
<p>Authorized users must:</p> <ul style="list-style-type: none"> • be able to connect to a data logger from the office, monitoring site or other approved remote location • be able to initiate calibrations from the office, monitoring site or other approved remote location • be able to connect to any instrument remotely and have full functionality as if the operator were sitting at the instrument at a monitoring site or other approved remote location 				

<ul style="list-style-type: none"> • have access to the central system from the office, monitoring site, or other approved remote location <p>Describe your company's implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.11 Security-Inactivity Timeout (V)				
<p>The system should provide the ability to automatically log-off a user if inactivity exceeds the user defined time-out period. Describe your implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.12 Security-Database Security (M)				
<p>Describe how your proposed system will detect and prevent malicious SQL Server data attacks.</p>				
Response:				
<hr/>				
3.5.13 Security-Prevention of Simultaneous Logons by the Same User (V)				
<p>The system should prevent simultaneous logons by the same user. Describe your implementation of this requirement.</p>				
Response:				
<hr/>				
3.5.14 Security-Temporary Deactivation of User Accounts (V)				
<p>The system should provide the ability to temporarily deactivate user accounts without changing their security profiles or attributes. Describe your implementation of this requirement.</p>				
Response:				

3.6 Central System-Alarms and Errors

3.6.1 Central System-Alarms (V)				
<p>Central system alarms should be user-definable and notify the operator of failures in the form of emails, pages, or phone calls. The system should allow each site to be associated with one or more individuals to receive the alarms. Alarms should be activated to notify system operators of the following failures:</p> <ul style="list-style-type: none"> • when a site or a parameter has not reported data at any given poll • when a data point of any given parameter is out of range • when any hour's data output file has not successfully been sent to AIRNOW • when any hour's data output file has not successfully been sent to the public website <p>Describe your implementation of this requirement.</p>				

Response:				
3.6.2 Central System-Data Acquisition-Logger Flags (M)				
<p>Users must have the ability to set logger flags on any data channel from the central system or from remote locations. These flags include, but are not limited to:</p> <ul style="list-style-type: none"> • Disable flag (Out of service flag) • Audit/Calibration flag 				
Response:				
3.6.3 System-Error Handling (M)				
<p>Vendor must describe how the system handles data entry errors (e.g. mis-keyed dates, validation ranges, etc.), other system events that require attention, and logging features. Describe your implementation of this requirement.</p>				
Response:				

3.7 Central System-Data Acquisition-Automated Method

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.7.1 Data Acquisition-Polling Flagged Data (M)				
<p>Flagged data from the instrument or data logger must be part of the polled dataset. Any and all associated flags must become part of the RAW and EDIT datasets. This may include as many as ten flags associated with a data point. Describe your implementation of this requirement.</p>				
Response:				
3.7.2 Central System-Data Acquisition-1 Hour Data Polling (M)				
<p>The central system must retrieve/poll hourly averages for all parameters at every monitoring site at least once each hour, at approximately one minute after the hour. Describe your implementation of this requirement.</p>				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.7.3 Central System-Data Acquisition-1 Minute Data Polling (M)				
The Central System must retrieve/poll for 1-minute data at least twice per hour (e.g., at 25 minutes after the hour and 50 minutes after the hour). Describe your implementation of this requirement.				
Response:				
3.7.4 Central System-Data Acquisition-Dialup Polling (M)				
The central system must be capable of polling selected sites using a dial-up (landline or cellular) connection. This option would be used in the event that other types of connections are not available, are cost-prohibitive, or are temporarily out-of-service. Describe your implementation of this requirement.				
Response:				
3.7.5 Central System-Data Acquisition-Automatic Catch-up Polling (M)				
The system must interrogate itself to check for missing data and continue to poll for missing data at user-specified intervals until it is complete. Describe your approach and implementation of this requirement.				
Response:				
3.7.6 Central System-Data Acquisition-Manual Catch-up Polling (M)				
An authorized user must be able to manually request a poll for hourly and 1-minute data as needed for selectable sites. Describe your implementation of this requirement.				
Response:				

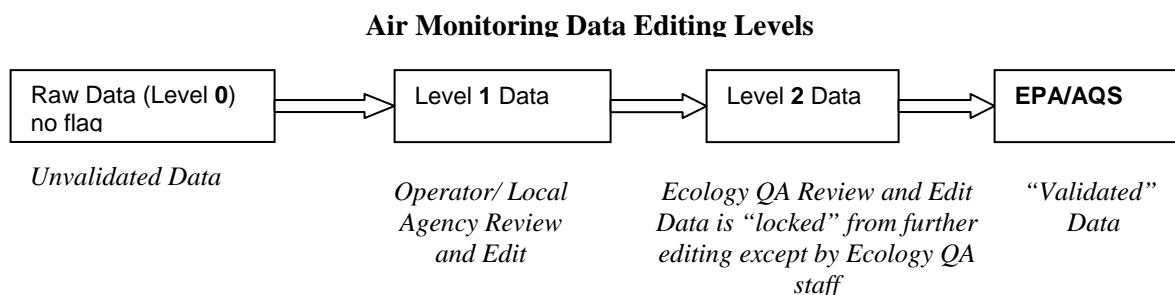
3.8 Data Acquisition – Manual Method

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.8.1 Data Acquisition-Manual Method-Remote Programming (M)				
Users with the proper security access must be able to program manual method samplers (such as the R&P 2025 Partisol sampler) from the central system and from remote locations. Describe your implementation of this requirement.				
Response:				
3.8.2 Data Acquisition-Manual Method Data Capture and Storage (M)				
The system must provide for the collection and storage of all environmental and mass concentration data from the manual method network (sampler environmental data and laboratory data). Describe your implementation of this requirement.				
Response:				
3.8.3 Data Acquisition-Manual Method Data Reporting (M)				
The central system must provide for the generation of time-scalable AQS transactions for reporting all required manual method environmental and mass concentration data to EPA in accordance with EPA protocol and Code of Federal Regulations requirements. Describe your implementation of this requirement.				
Response:				
3.8.4 Data Acquisition-Manual Method Data Editing (M)				
The central system must provide an Internet-based interface for editing of all manual method data (including all environmental, laboratory, and mass concentration data). The results must be viewable and editable after the data is entered. Describe your implementation of this requirement.				
Response:				
3.8.5 Data Acquisition-Manual Method Storage of Laboratory Filter Weights (D)				
The central system should store filter final tare and initial gross weights for any filter sample (PM 10, PM 2.5, PM Coarse, air toxics, etc.) in the EDIT database. Describe your implementation of this requirement.				
Response:				

3.9 Central System-Data Edit Levels

For quality assurance purposes, Ecology, and its partners need to flag data that has been examined and updated. The following diagram depicts the QA process, followed by elements that further describe Ecology's requirements.



Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.9.1 Data Editing-Level 1 Data (M) The system must provide for coding or flagging of data as follows: Level 1 (or equivalent) code or flag: A Level 1 flag constitutes any data that has been collected by Ecology or any of its air quality partners that has undergone a documented quality control process and has been subsequently reviewed by qualified personnel within the agency of origin. Ecology monitoring station operators and designated air quality partner staff (i.e., station operators, data analysts, etc.) will set this flag. Data at Edit Level 1 will remain editable to the originating entity until such time as it is assigned an Edit Level 2 flag by Ecology QA staff (some Level 1 data will not receive an Edit Level 2 flag and will thus remain editable to the originating agency). Data at Edit Level 1 is not sent to AQS. Describe your implementation of this requirement.				
Response:				
3.9.2 Data Editing-Level 2 Data (M) The system must provide for coding or flagging of data as follows: Level 2 (or equivalent) code or flag: A Level 2 flag constitutes any data collected by Ecology or any of its partners that has been collected in accordance with Ecology standard operating procedures, meets all relevant Code of Federal Regulations requirements, and has undergone the formal Ecology Quality Assurance process. Data flagged as Edit Level 2 is "locked" from editing by anyone except Ecology Quality Assurance personnel. Ecology Quality Assurance staff will set this flag. Data at Edit Level 2 is sent to AQS. This flag will be for internal use only and must not be included in AQS				

transactions. Describe your implementation of this requirement.

Response:

3.10 Central System-Graphical Data Display and Editing

There are two major functions that a charting/graphing tool is expected to provide.

- The first is hereinafter referred to as the “Graphical Data Editor” and must provide for the review and editing of all 1-minute and 1-hour data residing on the central EDIT database. It is intended to be restricted to internal use only by those granted permission to change data.*
- The second is hereinafter referred to as the “Data Graphing Tool” and should provide for the display of the 1-hour data residing in the central EDIT database. It should be available to all users, including the public.*

The preferred solution for charting functions is a single Internet-based application with different functionality depending upon assigned user access rights. The Graphical Data Editor could only be used as the Data Graphing Tool if the following conditions apply:

- Data editing is disabled.*
- 1-minute data is not viewable.*
- 1-hour data flagged as invalid is not viewable.*

3.10.1 Graphical Data Editor

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.1.1 Graphical Data Editor-General (M)				
The system must provide an internet-based Graphical Data Editor which provides for the editing/flagging of data residing on the central EDIT database. Describe your implementation of this requirement.				
Response:				
3.10.1.2 Graphical Data Editor-Continuous Monitoring Data (M)				
The Graphical Data Editor must be useable for all continuous monitoring data. Describe your implementation of this requirement.				
Response:				
3.10.1.3 Graphical Data Editor- 1 Minute Data (M)				
The Graphical Data Editor must display and provide for the editing of all 1-minute data in the central EDIT database. Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.1.4 Graphical Data Editor-1 Hour Data (M)				
The Graphical Data Editor must display and provide for the editing of all 1-hour data in the central EDIT database. Describe your implementation of this requirement.				
Response:				
3.10.1.5 Graphical Data Editor-Time Scalability (M)				
The Graphical Data Editor must allow for time-scalability of data displayed (i.e., view 1-minute and 1-hour averages over any user-selectable time period). Describe your implementation of this requirement.				
Response:				
3.10.1.6 Graphical Data Editor-Graphing Engineering Units of Parameters (V)				
The Graphical Data Editor should automatically scale the Y-axis for the proper engineering units of each parameter, unless several pollutants with different units are displayed, in which case the Y-axis should be numbered without engineering units. Describe your implementation of this requirement.				
Response:				
3.10.1.7 Graphical Data Editor-One Parameter, Many Sites (V)				
The Graphical Data Editor should be able to display one parameter from many sites on the same chart. (e.g. PM2.5 from Beacon Hill, Duwamish, etc.). Describe your implementation of this requirement.				
Response:				
3.10.1.8 Graphical Data Editor-Multiple Parameters, One Site (V)				
The Graphical Data Editor should have the ability to display multiple parameters from one site on the same display (i.e., ozone and wind direction from Beacon Hill). Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.1.9 Graphical Data Editor-Internet VPN Access (M)				
Users with the appropriate security clearance must have accessibility to, and full functionality of, the central system Graphical Data Editor via the Internet/VPN. Describe your implementation of this requirement.				
Response:				
3.10.1.10 Graphical Data Editor-Assigning Flags (M)				
The Graphical Data Editor must allow users to display a range of 1-minute data (or 1-hour) for a specific parameter(s) and assign a flag (i.e., AQS null data code flag). Describe your implementation of this requirement.				
Response:				
3.10.1.11 Graphical Data Editor-Flagging and Percent Hourly Data (M)				
<p>Edits (flags) applied to 1-minute data must also automatically apply to the corresponding 1-hour values as follows:</p> <ul style="list-style-type: none"> • A minimum of 75% of an hour (45 minutes) must be judged valid to allow a valid 1-hour average. • If 1 to 14 minutes of an hour is flagged as missing or invalid, the remaining valid minutes are averaged and the newly calculated average is inserted into the corresponding 1-hour table. • If 15 or more minutes of data are missing or flagged as invalid, the corresponding 1-hour average is invalid and the appropriate flag is also applied to the 1-hour data value. • Conversely, if 1-hour data is being displayed, selecting a range of 1-hour data and applying a flag must also automatically apply to all 60 minutes of the corresponding 1-minute data table for each hour and apply the same flag. <p>Describe your implementation of this requirement.</p>				
Response:				
3.10.1.12 Graphical Data Editor-Creating Annotations (V)				
The Graphical Data Editor should allow a user, with the proper access rights, to create and store annotations pertaining to the data on the graphical display. Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.1.13 Graphical Data Editor-Displaying Annotations (V)				
Annotations in the Graphical Data Editor should be automatically displayed when the corresponding data is accessed. Describe your implementation of this requirement.				
Response:				
3.10.1.14 Graphical Data Editor-Mathematical Corrections (V)				
The Graphical Data Editor should allow a user, with the proper access rights, to apply mathematical corrections to data (e.g., in instances where an instrument is programmed to the wrong scale or to account for zero drift). Describe your implementation of this requirement.				
Response:				
3.10.1.15 Graphical Data Editor-Tracking by User (M)				
The system must automatically track all edits, flags, and annotations back to specific individuals based upon User ID. Describe your implementation of this requirement.				
Response:				
3.10.1.16 Graphical Data Editor-EPA/AQS Flags (M)				
The Graphical Data Editor must allow a user the ability to flag data according to EPA AQS null data coding and other AQS flagging, such as exceptional and natural events. AQS null data codes and exceptional event flags must be included in AQS file transactions for submittal to EPA. Describe your implementation of this requirement.				
Response:				
3.10.1.17 Graphical Data Editor-Visual Indicators (M)				
The Graphical Data Editor must display visual indications (i.e., change in color of trace) that reflect all flags and edits. Describe your implementation of this requirement.				
Response:				
3.10.1.18 Graphical Data Editor-Timestamps (V)				
The system should automatically record the date and time of all edits by user ID. Describe your				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
implementation of this requirement.				
Response:				

3.10.2 Data Graphing Tool

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.2.1 Data Graphing Tool-General (V)				
The system should include a Data Graphing Tool for use with all parameters (both continuous and manual method). The Puget Sound Clean Air Agency (PSCAA) has developed a tool that should serve as the model for the Data Graphing Tool. This tool can be found at http://www.pscleanair.org/airq/airqgraphing.aspx . Describe your implementation of this requirement.				
Response:				
3.10.2.2 Data Graphing Tool-Valid Data Display Only (V)				
Data flagged as “invalid” should not be displayed via the Data Graphing Tool. Describe your implementation of this requirement.				
Response:				
3.10.2.3 Data Graphing Tool-User Selectable Averaging Periods (D)				
The Data Graphing Tool should allow a user to select the averaging periods displayed; specifically, the increments of 1-hour, 8-hour, and 24-hour averages and AQI. Describe your implementation of this requirement.				
Response:				
3.10.2.4 Data Graphing Tool-Time Scalability (D)				
The Data Graphing Tool should allow for time-scalability – a user should be able to view data over user-selected time periods (e.g., 1-day, 3-days, 1-week, 2-weeks, 1-month, 3-months, 6-months, and 1-year). Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.10.2.5 Data Graphing Tool-Graphing Engineering Units of Parameters (V)				
The Data Graphing Tool should scale the Y-axis automatically such that engineering units are displayed according to parameter and magnitude (i.e., pollutant concentration). Describe your implementation of this requirement.				
Response:				
3.10.2.6 Data Graphing Tool-Magnitude of Y-axis (D)				
Users should be able to manually select the magnitude of the Y-axis scale. Describe your implementation of this requirement.				
Response:				
3.10.2.7 Data Graphing Tool-Multiple Parameters, One Site (V)				
The Data Graphing Tool should be able to display multiple parameters from a single site. Describe your implementation of this requirement.				
Response:				
3.10.2.8 Data Graphing Tool-One Parameter, Multiple Sites (V)				
The Data Graphing Tool should allow a user to display one parameter from multiple sites. Describe your implementation of this requirement.				
Response:				
3.10.2.9 Data Graphing Tool-Air Quality Index Display (D)				
The Data Graphing Tool should be able to display pollutants in terms of AQI (i.e., AQI values instead of concentrations where applicable). Describe your implementation of this requirement.				
Response:				
3.10.2.10 Data Graphing Tool-Functionality via the Internet (V)				
A user should have accessibility to, and full functionality of, the Data Graphing Tool via the Internet.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Describe your implementation of this requirement.				
Response:				
3.10.2.11 Data Graphing Tool-Trace Values (D)				
The Data Graphing Tool should include each trace's minimum, average, and maximum values for the interval displayed. Describe your implementation of this requirement.				
Response:				
3.10.2.12 Data Graphing Tool-Exporting Data (D)				
The Data Graphing Tool should have the functionality to allow the user to export a file of the data being displayed in XML or CSV formats. Describe your implementation of this requirement.				
Response:				

3.11 Central System-Precision Checks

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.11.1 Precision Checks-Automated Initiation (M)				
The central system must provide for control of gas dilution systems, solenoids, and relays for scheduled and remotely induced multi-level, automated precision and calibration checks of ambient air quality monitors via the station data logger. Describe your implementation of this requirement.				
Response:				
3.11.2 Precision Checks-Field Instrument Data (M)				
The system must be able to automatically retrieve and permanently store precision data from instruments in the field. Describe your implementation of this requirement.				
Response:				
3.11.3 Precision Checks-Calibration Data (M)				
The system must identify the level and sequence of all calibration data, including precision checks. Describe your implementation of this requirement.				
Response:				
3.11.4 Precision Checks-EPA/AQS Transaction Reports (M)				
The system must produce EPA AQS precision transaction reports. Describe your implementation of this requirement.				
Response:				
3.11.5 Precision Checks-Data Editing (M)				
Precision data must be editable. Describe your implementation of this requirement.				
Response:				
3.11.6 Precision Checks-Precision Checks-Control Charts (D)				
The system should be able to graphically display control charts based on the collected precision data.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Describe your implementation of this requirement.				
Response:				

3.12 Central System-Accuracy

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.12.1 Accuracy Data Storage and Reporting (D)				
The system should have the capacity for the hand keying and storage of all EPA-required accuracy (quality assurance audit) information and the ability to generate EPA AQS accuracy transaction reports from this data. Describe your implementation of this requirement.				
Response:				

3.13 Central System-Electronic Site Log

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.13.1 Electronic Site Log (M)				
The system must have an electronic logbook for each site that resides on the central system and is accessible via the Internet. Describe your implementation of this requirement.				
Response:				
3.13.2 Electronic Site Log-Data Fields (V)				
<p>The electronic log book should include the following data fields:</p> <ul style="list-style-type: none"> • Site ID • Tag number for a piece of equipment (if applicable – see 3.3.1) • Timestamp (Date and Time automatically placed in record when saved) • Parameter (affiliated with the particular site) • User ID • A text description field that allows for entries up to 2000 characters each. <p>Describe your implementation of this requirement.</p>				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Response:				
3.13.3 Electronic Site Log-Searching for Entries (V)				
The electronic logbook entries should be searchable by date, site, keyword, and parameter. Describe your implementation of this requirement.				
Response:				

3.14 Public Information Web Site

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.14.1 Graphic File Types-General (V)				
Charts, graphs and other images with a color palette of less than 256 colors should be .GIF files; others may be .JPG files. Describe your implementation of this requirement.				
Response:				
3.14.2 How to calculate the Air Quality Index (M-if web site is provided)				
The AQI for all NAAQS pollutants must be calculated according to current EPA guidance. Describe your implementation of this requirement.				
Response:				
3.14.3 Air Quality Index Calculation Changes (V)				
The vendor should provide a method to change the AQI calculations in accordance with EPA guidelines. Describe your implementation of this requirement.				
Response:				
3.14.4 Air Quality Index Graphic (V)				
It is highly desirable to display an AQI graphic (.gif) that includes the following: <ul style="list-style-type: none"> • Name of pollutant • Hourly average of pollutant in engineering units • A “dial” with hand that indicates the AQI for the most current hour • Dial must display local time. 				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
<ul style="list-style-type: none"> • Date • Site Name (See meter_ellrub_tpm25_24.gif) <p>Describe your implementation of this requirement.</p>				
Response:				
<hr/>				
3.14.5 Three Day AQI Trend (V)				
<p>It is highly desirable to display a 3-day trend graphic (.gif) that includes:</p> <ul style="list-style-type: none"> • Most recent three-day span of data • Name of parameter(s) • Tracings of all pollutants at a site, depicting the AQI value for the most current hour • Y-axis = AQI value • Reference line at AQI = 50 in yellow and the words “Moderate” • Reference line at AQI = 100 in orange and the word “Unhealthy for sensitive groups” • X-axis = local time in hours - with at least midnight and noon hours indicated. • “Unvalidated data” must appear on the graphic. • Date • Site Name (See 3dayTrend.gif) <p>Describe your implementation of this requirement.</p>				
Response:				
<hr/>				
3.14.6 AirNow Automated Export (V)				
<p>Each hour, the system should automatically export a text file of all AQI values that includes: AQS site code, AQI value, site name, parameter, date, and hour. Describe your implementation of this requirement.</p>				
Response:				

3.15 Reporting

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.15.1 Reports-Printing-Use of larger paper sizes (D)				
The system should allow the user to define font and paper size for reports. Describe your implementation of this requirement.				
Response:				
3.15.2 Reports-Internet-based (M)				
The system must have the ability to serve browser-based reports to users located in the WAN or outside of the network via the Internet by type of report, sites, and measured parameters. Describe your implementation of this requirement.				
Response:				
3.15.3 Reports-Vendor description of (M)				
The vendor must describe the proposed reporting capabilities. The description must include the available public views of the monitoring data and associated site attributes. In addition, the description must specifically include those reports that are accessible only to those partners who have inside access to the network. Describe your implementation of this requirement.				
Response:				
3.15.4 Reports-Exporting Formats (M)				
All reports must be exportable to text, CSV and XML formats. Describe your implementation of this requirement.				
Response:				
3.15.5 Reports-AQS data export (M)				
All data must be exportable in CSV, XML, and AQS file format. Describe your implementation of this requirement.				
Response:				
3.15.6 Reports-AQS format (M)				
A user must be able to generate Raw Data AQS transaction files for all Level 2 (validated) data. Describe your implementation of this requirement.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Response:				
3.15.7 Reports-Ad-hoc reporting tool (V)				
<p>An ad hoc data-reporting tool is highly desirable to allow users flexibility in designing their own reports. User should have capability to sort results by any data field and save the reports for future use. In addition the user should be able to select from:</p> <ul style="list-style-type: none"> • Site (user selectable: one, several or all) • County (user selectable: one, several or all) • Parameter (user selectable: one, several or all) • Time scale (user selectable: day, week, month, variable 3 months, variable 6 months, quarter, year) • Averaging period (1-hour, running 3-hour, 8-hour, 24-hour, and user-defined) • Maximum values and/or minimum values • Multiple time periods (i.e., May-October for each of the years 1999-2005) • Time zone (i.e., Alaska, Pacific , GMT, etc.) 				
Response:				
3.15.8 Reports-AQS file for populating external databases (M)				
<p>Every hour the system must automatically create a file of the most recent hourly data for all active site/parameters in AQS format for the current and previous day to be used for populating current external databases. (See dataAllDailyAQS.rtf) Describe your implementation of this requirement.</p>				
Response:				
3.15.9 Reports-Daily columnar listing of all 24 hours by parameter (D)				
<p>The system should be capable of producing a daily columnar file listing all 24 hours of hourly data for all active site/parameters in text format and grouped by parameter. The number of days should be selectable. If printing is desirable, 11x17-portrait layout is necessary. (See dataAllDaily24ByParameter.rtf) Describe your implementation of this requirement.</p>				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.15.10 Reports-Daily summary report (D)				
The system should be capable of generating a daily summary report of 1-hour data by site with parameter(s). (See dataDaily24BySite.rtf) Describe your implementation of this requirement.				
Response:				
3.15.11 Reports-24X31 Report (M)				
The system must be capable of generating a monthly summary report of 1-hour data by site and parameter (24x31) that includes daily average, daily maximum, and daily minimum as well as monthly maximum and minimum values. (See dataMonthly24x31.rtf) Additionally this same report should be capable of generating reports of 8-hour and 24-hour rolling averages and where National Ambient Air Quality Standards (NAAQS) are applicable, display the average in terms of the Federal Standard (e.g. 8-hour ozone averages stored in the beginning hour, or 8-hour carbon monoxide averages stored in the ending hour). (See 8hrOzoneMonthly Running Average Report.rtf). Describe your implementation of this requirement.				
Response:				
3.15.12 Reports-AQI daily maximum report (V)				
The system should be capable of generating a monthly report showing daily maximum AQI values for each site or county. (See DailyAQIByMonthEachCounty.pdf) Describe your implementation of this requirement.				
Response:				
3.15.13 Reports-AQI Annual Report (D)				
The system should be capable of generating an annual report showing the number of days in each AQI category (Good, Moderate, etc.) for each site or county. (See AQIDaysByYearEachCounty.xls). Describe your implementation of this requirement.				
Response:				
3.15.14 Reports-Communication Summary Report (D)				
The system should be capable of generating a communication summary report of failed logger communications for each/all sites. (See comm.rtf). Describe your implementation of this requirement.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Response:				
3.15.15 Reports-Manual method monthly summary (V)				
The system should be capable of generating a monthly summary report of manual method particulate sites by parameter that includes daily values with AQI color coding, monthly averages, monthly maximums, year-to-date quarterly averages, yearly averages, yearly percentiles, yearly maximums, and number of samples. (See dataMonthlyPmManual.xls). Describe your implementation of this requirement.				
Response:				
3.15.16 Reports-Manual method annual particulate report (V)				
The system should be capable of generating an annual particulate report showing all 24-hour (daily) mass concentrations (for both continuous and manual methods) by site for each month in a given year, including the monthly and year averages, maximums and number of samples. (See dataAnnualPmBySite.rtf). Describe your implementation of this requirement.				
Response:				
3.15.17 Reports-Missing data report (M)				
The system must be capable of generating a missing data report. (See MisgDataHourly.rtf and MisgDataMinute.rtf). Describe your implementation of this requirement.				
Response:				
3.15.18 Reports-Exceedance report for NAAQS pollutants (V)				
The system should be capable of generating an exceedance report for pollutants with NAAQS standards that includes the date and concentration of the exceedance. (See Exceedances.rtf). Describe your implementation of this requirement.				
Response:				
3.15.19 Reports-Ozone 4th-highest 8-hour average annual summary report (D)				
The system should be capable of generating an ozone 4 th highest 8-hour average annual summary.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
(See dataAnnualOzone.rtf). Describe your implementation of this requirement.				
Response:				
3.15.20 Reports-CO 2nd highest 8-hour average report (D)				
The system should be capable of generating a carbon monoxide 2 nd highest 8-hour average annual summary report. (See dataAnnualCO.rtf). Describe your implementation of this requirement.				
Response:				
3.15.21 Reports-PM2.5 98th percentile and annual average report (V)				
The system should be capable of generating a PM2.5 annual mean and 98 th percentile report for both manual and continuous methods. (See dataAnnualPm25ByMethod.rtf). Describe your implementation of this requirement.				
Response:				
3.15.22 Reports-PM10 99th percentile and annual average report (V)				
The system should be capable of generating a PM10 99 th percentile and annual average report for both manual and continuous methods. (See dataAnnualPm10ByMethod.rtf). Describe your implementation of this requirement.				
Response:				
3.15.23 Reports-PM2.5 3-year average of annual mean and 98th % reports (V)				
The system should be capable of generating a PM2.5 3-year average of the annual mean and 98 th percentile report for all sites by method. (See dataPm25-3YrAvgByMethod.rtf). Describe your implementation of this requirement.				
Response:				
3.15.24 Reports-PM10 3-year average of annual mean and 99th % report (V)				
The system should be capable of generating a PM10 3-year average of the annual mean and 99 th				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
percentile report for all sites by method. (See dataPm10-3YrAvgByMethod.rtf). Describe your implementation of this requirement.				
Response:				
3.15.25 Report-Wind and Pollutant Roses (Graphical reports) (D)				
The system should be capable of generating graphical wind and pollutant roses with selectable time periods. The Puget Sound Clean Air Agency has developed a wind rose display application that should serve as the model. The application can be found at http://www.pscleanair.org/airq/windrose/windrose.aspx . Describe your implementation of this requirement.				
Response:				
3.15.26 Reports-All active sites report (V)				
The system should be capable of producing a report of all active sites. (See SitesActive.xls) Describe your implementation of this requirement.				
Response:				
3.15.27 Reports-Active parameters report (V)				
The system should be capable of generating a report of all active parameters. (See ParametersActive.xls) Describe your implementation of this requirement.				
Response:				
3.15.28 Reports-List of all site-parameters by start and end dates (V)				
The system should be capable of generating a list of all site-parameters by start and end dates with AQS codes (for site, parameter, method, interval, units, POC, frequency, and decimals). This report should be sortable by site or parameter. (See SiteParametersBySite.xls and SiteParametersByParameter.xls) Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.15.29 Reports-Site operator information report (D)				
<p>The system should be capable of generating a list of sites and operators. This report should include:</p> <ul style="list-style-type: none"> • Site Name • Site phone number • Site operator cell phone number <p>Describe your implementation of this requirement.</p>				
Response:				
3.15.30 Reports-Printing-Microsoft Windows Printer Support (M)				
<p>The system must have the capability to print any of the generated reports displayed on the screen to any printer that is configured under Microsoft Windows. Describe your implementation of this requirement.</p>				
Response:				
3.15.31 Reports-Printing-Microsoft Windows Printer Support (D)				
<p>The user should have the ability to pick different font types and font sizes for reports. Describe your implementation of this requirement.</p>				
Response:				
3.15.32 EPA Program Support-AirNow (M)				
<p>The system must automatically export ozone and PM2.5 data, hourly, to the EPA AirNow System.</p> <ul style="list-style-type: none"> • Specifications (e.g. voltage set up) • Certification and calibration dates • History of activity <p>Describe your implementation of this requirement.</p>				
Response:				

3.16 Site Requirements

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.16.1 Site-Ethernet LAN (M)				
<p>At each monitoring station a site Ethernet LAN will be created by installing a router on the connection between the cable/DSL modem (or other broadband communication device) and the computer/data logger.</p> <p>The vendor must provide a solution that works with the following router configuration:</p> <ul style="list-style-type: none"> • Network Address Translation (NAT), • Have DHCP server capabilities, • Have Stateful Packet Inspection, • Firewall capabilities, • Provide port pass-through capabilities, • Be able to act as a Virtual Private Network (VPN) end-point and • Have remote management capabilities using HTTP, SNMP, or Telnet protocols. • Using Internet Protocol Security (IPsec) <ul style="list-style-type: none"> • The Internet side (WAN port) of the router will be assigned a static IP address to provide remote clients with the capability of connecting over the Internet/VPN. <p>Describe your implementation of this requirement.</p>				
Response:				
3.16.2 Security-Remote Monitoring Site Access (M)				
<p>Remote access to a monitoring site (data logger and analyzer) must incorporate user authentication and function within the security framework defined by the State of Washington. Describe your implementation of this requirement.</p>				
Response:				
3.16.3 Site-Access to Central System from the Monitoring Site (M)				
<p>Site Operators need access to the central system data and applications from the sites. Section 3.5.6 is applicable. The vendor must propose options for accessing the central system from a monitoring site (e.g. PC-based data logger, PC workstation if using a discrete data logger, operators with laptops, etc.). Describe your implementation of this requirement.</p>				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.16.4 Site-Workstation/Data Logger Configuration (M)				
<p>If a PC-based data logger is proposed, the vendor must provide Ecology with the hardware specifications required to support the vendor's data logging software. (Workstations installed at sites must use Microsoft XP Professional as the operating system. Because of its strong discount buying power, Ecology will likely purchase all PC workstations). Describe your implementation of this requirement.</p>				
Response:				
3.16.5 Central System-Viewing Instantaneous Data (M)				
<p>Users with the appropriate security access must be able to view instantaneous data on-site and remotely. This data is not stored. Describe your implementation of this requirement.</p>				
Response:				
3.16.6 Site-Equipment Tracking (D)				
<p>The system should include the ability to track equipment information, including but not limited to:</p> <ul style="list-style-type: none"> • Tag number • Tag number type (e.g. ECY, local air agency, etc.) • Description of equipment • Equipment type • Make • Model • Serial number • Date of purchase • Warranty information • Warranty expiration date • Current location of equipment (Site ID) • Loaned to (entity) • Status/disposition (e.g. where it's at, out of service, in for repair, spares shelf, etc.) • Specifications (e.g. voltage setup) • Certification and calibration dates • History of activity • Comments <p>Describe your implementation of this requirement.</p>				
Response:				

3.17 Data Loggers

Many current analyzers have the capability to deliver their outputs (1-minute and 1-hour averages) via serial communication rather than converting them to analog (as is our current practice). Since there is no industry-wide standard for serial communications and multiple protocols exist, the preferred analyzer connectivity is Ethernet or USB.

Since this telemetry system proposal must deal with our current analyzers, the analyzer-to-logger connections must deal with serial communications. The bulk of our analyzers have analog and RS232 outputs available with a few remaining older analyzers with just analog output. Therefore, the proposed solution appears to be a data logger with the capability for the user to configure the appropriate serial connection to the analyzer. We welcome alternative solutions for analyzer-to-logger connectivity issues.

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.17.1 Data Logger Options (M)				
<p>Ecology recognizes that the technology for collecting continuous monitoring data has evolved in recent years. At present, Ecology uses ESC 8800 and 8816 data loggers. Ecology intends to replace all 8800 data loggers. Ecology may continue to use the 8816 data loggers if total replacement of the ESC data loggers is cost prohibitive at this time. However, Ecology is most interested in acquiring the highest level of capability for the least amount of dollars.</p> <p>Vendors must submit options for new data logging capabilities. They can include the traditional, discrete data loggers and/or personal computers configured as data loggers.</p> <p>If the vendor is proposing only discrete data loggers:</p> <ul style="list-style-type: none"> • They must be described separately, by brand, and include descriptions of capabilities and specifications; • Any additional hardware requirements to operate the data loggers (e.g. a PC installed in the monitoring site to access the data logger) must be listed as well as specific requirements for this equipment to function <p>If the vendor is proposing only PC-based data loggers:</p> <ul style="list-style-type: none"> • The vendor must identify specific hardware and software components that must be added to a standard PC configuration to make a PC function as a data logger (e.g. additional PCI card and drivers). This pertains to the situation where Ecology chooses to purchase standard configuration PCs through the state's master contracts. • The vendor must provide specifications for hardware and software. This includes dimensions for the case containing the components (e.g. ATX, mini-tower, full-tower, small form factor, etc.) as well as other information describing components that make up the physical "footprint". 				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
<p>If the vendor is proposing both types of data loggers:</p> <ul style="list-style-type: none"> • They must be described separately in this section as sub-sections “A” (discrete data loggers) and “B” (PC-based data logger). • The discrete data loggers must be described separately, by brand, and include descriptions of capabilities and specifications; • Any additional hardware requirements to operate the discrete data loggers (e.g. a PC installed in the monitoring site to access the data logger) must be listed as well as specific requirements for this equipment to function • The vendor must identify specific hardware and software components required to make a PC function as a data logger. • The vendor must provide specifications for PC hardware and software. This includes dimensions for the case containing the components (e.g. ATX, mini-tower, full-tower, small form factor, etc.) as well as other information describing components that make up the physical “footprint”. • The vendor must also include a table showing general data logging functions and comparisons between the traditional discrete data loggers being recommended and PC-based data loggers being recommended. <p>Furthermore, if the vendor offers options for PC-based data loggers, Ecology reserves the right to purchase the hardware and operating system separately under the State of Washington’s master contracts, should better pricing be available. <u>The operating system for PC-based data loggers must be Microsoft Windows XP (latest service pack).</u></p> <p>Section 6 gives instructions on how to state the pricing of this equipment.</p>				
Response:				
<hr/>				
3.17.2 Data Logger-1 Minute Data Capture and Storage (M)				
The data logger must capture and store 1-minute data averages. Describe your implementation of this requirement.				
Response:				
<hr/>				
3.17.3 Data Logger-1 Hour Data Calculation and Storage (M)				
The data logger must store 1-hour averages. One hour averages calculated by the instruments must be stored. In the event that instruments are not capable of calculating or providing 1-hour averages, the data logger must calculate the 1-hour averages using the smallest increment of data available. Describe your implementation of this requirement.				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
Response:				
3.17.4 Data Logger-Automated Flags (M)				
<p>The data logger will automatically flag data when events occur, including:</p> <ul style="list-style-type: none"> • Power outages • Thresholds exceeded (including enclosure temperatures) • Precision checks (automatically initiated) • Over/under range (upper/lower thresholds exceeded) • Equipment is disabled • Rate of change limits exceeded <p>Describe your implementation of this requirement.</p>				
Response:				
3.17.5 Data Logger-Security-Data Site (M)				
<p>The data logger must not allow edit access to data stored on the data logger or the analyzer except for the flags identified in Section 3.6.2 and 3.17.16. All other data edits and flagging must occur via the Graphical Data Editor on the central system. Describe your implementation of this requirement.</p>				
Response:				
3.17.6 Data Logger—Enable/Disable Channel (M)				
<p>The data logger must allow an operator, with the proper security access, to enable/or disable a channel. Describe your implementation of this requirement.</p>				
Response:				
3.17.7 Data Loggers-Memory Capacity (M)				
<p>The vendor's data logger must have enough memory to store at least 8 channels of minute and hourly data for 21 days. Describe your implementation of this requirement.</p>				
Response:				
3.17.8 Data Loggers-Number of Channels (V)				
<p>The vendor's data logger should be able to record data from 8 channels, expandable to 96. Describe your implementation of this requirement.</p>				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.17.9 Data Loggers-Display Capability (V)				
A display should be part of the vendor's data logger; if not, it should have the ability to connect to a display. Describe your implementation of this requirement.				
Response:				
3.17.10 Data Loggers-Serial Ports (M)				
In order to acquire and store data serially from analyzers, the vendor's data logger must have at least five serial ports with options to add more. Describe your implementation of this requirement.				
Response:				
3.17.11 Data Loggers-Digital Input Required (M)				
The vendor's data logger must accept digital input. Describe your implementation of this requirement.				
Response:				
3.17.12 Data Loggers-Analog Input Required (M)				
The vendor's data logger must accept analog input. Describe your implementation of this requirement.				
Response:				
3.17.13 Data Logger-Connection to the Site Ethernet LAN (M)				
Data loggers (discrete device or PC-based) must be TCP/IP addressable, have a connection to the site Ethernet LAN, and be capable of communicating using standard Internet protocols such as FTP, Telnet, and HTTP and be compatible with requests from the central system. Describe your implementation of this requirement.				
Response:				
3.17.14 Data Logger-8816 Data Loggers (M)				
Given the expected longevity of the new system, replacement of the existing data loggers is anticipated. If the proposed solution for the system cannot replace all of the existing ESC 8816 data loggers during initial implementation, the proposal must include a solution which converts the ESC 8816 serial (RS232) modem network connection to TCP/IP communications. Describe your implementation of this requirement.				
Response:				

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3rd Party
3.17.15 Data Logger-Pass-through Communication (M)				
New data loggers must allow pass-through communication in order to directly access instrument diagnostics. Describe your implementation of this requirement.				
Response:				
3.17.16 Data Logger-Audit/Calibration Flag (M)				
The data logger must allow an operator, with the proper security access, to set an audit or calibration flag. Describe your implementation of this requirement.				
Response:				

3.18 Network Connectivity

The preferred connection between remote sites and the Internet is a dedicated, 24-hour broadband connection via services such as cable or digital subscriber line (DSL). Depending upon availability, other alternatives may include wireless (including digital cellular), WiFi, satellite, radio, dial-up, leased-line, or WAN (Ethernet). The vendor's proposal must allow Ecology to implement all these solutions as needed. The vendor's proposal must allow Ecology to implement these solutions as needed

Element/Description/Priority	(1) Comply	(a) Core	(b) Custom	(c) 3 rd Party
3.18.1 Network Connectivity-Internet-based (M)				
The telemetry system network must be Internet-based using the standard suite of Internet communication protocols, usually referred to as "TCP/IP". Implementing the telemetry system as envisioned requires that each site be assigned a specific static IP address. Describe your implementation of this requirement.				
Response:				
3.18.2 Network Connectivity-VPN (M)				
In order to provide secure communication from remote clients to devices at remote sites or the central system LAN, the proposed solution must work with virtual private network (VPN) technology over the Internet. Describe your implementation of this requirement.				
Response:				

4 Project Management and Implementation Section

The following elements can be prioritized in three ways:

- (M) = Mandatory. This is a feature that Ecology and its partners have identified as a “must have” in order to accomplish their mission. Vendors intending to compete for this contract must satisfy **all Section 4 mandatory elements at the time the proposal is submitted.**
- **Proposals that do not satisfy the mandatory elements will not be evaluated further.**
- (V) = Very Desirable. This is a feature that Ecology and its partners have identified as vitally important to successfully accomplishing their mission.
- (D) = Desirable. This is a feature that Ecology and its partners believe would be very helpful in accomplishing their mission.
- **Response:** Provide a narrative description of the vendor’s approach to meeting this element. An answer of “we understand and will comply” is not acceptable. Vendors may attach and clearly reference additional information if desired.

Evaluation Criteria: Washington State agencies utilize the Project Management Framework <http://isb.wa.gov/tools/pmframework/index.aspx>. The framework fulfills the function of a virtual project management office for Washington State. It allows project managers to review a checklist of best practice items. The evaluation team will reference the Framework when scoring vendor proposals. In Section 4, higher scores will be assigned to proposals modeled on or closely resemble Washington’s Project Management Framework. Other well-established models are equally acceptable and will score equally as well.

4.1 Project Management Approach

The vendor’s response must contain a detailed description of the vendor’s project development and management approach. The vendor’s proposal must:

4.1.1 Overall Project approach (M)
Describe, based on knowledge of and experience with similar projects, the overall project management approach, including but not limited to planning, organizing, and managing the staff.
Response:
4.1.2 Project Quality Assurance (M)
Describe how the vendor will conduct internal quality assurance and provide to Ecology any quality assurance reports that are produced during the project.

Response:

4.1.3 Issue Management (M)

Describe the vendor's approach and process for issue identification, communication, resolution, escalation, tracking, approval by Ecology, and reporting.

Response:

4.1.4 Change Management (M)

Describe the approach to change control, including steps, roles and responsibilities, and decision points. For the purpose of this project/initiative, a change is defined as an expressed issue resolution that may negatively affect the success of the project through scope, cost, or schedule.

Response:

4.2 Project Plan

Keeping a structured work plan that facilitates the delivery of the DAS and the modifications Ecology has asked for is important to success of the DAS implementation. The ability to identify, discuss, and report on the critical path of the project is required. Ecology expects the vendor to track all tasks assigned to vendor staff and Ecology project staff, and any subcontractors. If awarded the bid, the vendor will detail the project plan.

Ecology intends to develop and maintain an "Official" project work plan identifying Ecology tasks and appropriate vendor tasks, milestones and deliverables identified in the vendor's detailed work plan. Vendor tasks will be selected as milestones against which vendor progress will be monitored. The successful vendor will be expected to report progress against the official work plan. Ecology must agree to the outline and the detailed plan. The vendor's proposal must:

4.2.1 Preliminary Project Work Plan (M)

Include a preliminary project work plan, showing sufficient sub-task levels so that no lowest-level task requires longer than 2 weeks to complete, in electronic form using Microsoft Project 2003 or higher. Include timelines, tasks, milestones, deliverables, task dependencies, and resources for delivering the proposed solution. This must include the scheduling of weekly status meetings, bi-weekly status reporting, and bi-weekly work plan reviews.

Response:

4.2.2 Ecology Resources Required (M)

Show tasks requiring Ecology resources; summarize the proposed use of Ecology resources, and any assumptions regarding anticipated involvement of these resources. Further, agree that the vendor retains final responsibility for the quality of the deliverables.

Response:

4.2.3 Critical Path Diagram (M)

Provide a critical path diagram showing all significant tasks/activities and inter-dependencies that take the project through final implementation of the vendor's products (hardware and software).

Response:

4.3 Project Delays

The vendor must outline a plan for handling delays, resolving problems, and allocating financial responsibility for them.

Response:

4.4 Vendor's Proposed Project Staff (M)

4.4.1 Staffing Plan (M)

The vendor must provide a staffing plan which includes a description of the overall approach to project organization and staffing, including subcontractors, which addresses the entire scope of the project.

Response:

4.4.2 Vendor Staff Qualifications (M)

The vendor must provide the names and resumes of vendor staff to be assigned to this project and a schedule of availability for each vendor staff proposed for the life of this project. If the number of project staff members will change throughout the life of the project, identify when those changes will take place and the minimum number of staff that will be assigned to this project during those changes.

Response:

4.4.3 Vendor Organization Chart (M)

The vendor must provide a project organization chart identifying the name and position of the vendor's staff, including subcontractors, responsible for carrying out the entire scope of the project.

Response:

4.4.4 Vendor Staff Work Location (M)

The vendor must provide a description where all staff assigned to this project, including developers, will be geographically located (city, state, and country) throughout the lifecycle of the project and explain how and to what extent they will be accessible to the NWADES Project Implementation Team. Describe how the Project Manager will remain informed and accessible to Ecology for the life of the project.

Response:

4.4.5 Vendor Staff Continuity (M)

The vendor must provide a description of policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP. In order to ensure the success of this project, it is important that there is a continuity of key staff assigned to the project. Staffing substitutions will only be implemented with Ecology's approval.

Response:

4.4.6 Vendor Communication Plan (M)

The vendor must discuss the proposed lines of authority, coordination, and communication to include communication between the parties. The vendor's proposal must describe lines of authority/communications between Ecology and vendor executives, directors, officers, vendor project manager, and subcontractors.

Response:

4.5 Approach to Requirements Verification / Gap Analysis (M)

Ecology anticipates that the proposed COTS DAS will support the majority of the requirements Ecology has in this RFP. However, it is understood that the COTS system may require modification to meet all Ecology's needs.

The purpose of the Requirements Specification Document (RSD) is to identify proposal requirements, and identify how and where the requirements are met in the DAS design and to define system acceptance criteria. A Gap Analysis should be performed by Vendors to determine what requirements and data elements do not have the corresponding function and data element within the proposed DAS. The vendor's proposal must:

4.5.1 Requirements Verification (M)

Describe vendor's overall approach to the Requirements Verification process.

Response:

4.5.2 RSD and Gap Analysis (M)

The vendor's proposal must include RSD and a Gap Analysis.

Response:

4.5.3 Approach to Custom Programming (M)

Describe the vendor's approach to developing and implementing custom-programmed requirements (i.e., interviews, JAD sessions, etc.)

Response:

4.6 Testing

The final system acceptance test will poll actual sites, preferably in tandem with the current system. The central system and polling applications must run successfully for 30 days. The system must achieve 100% data capture for 30 days (excluding analyzer failures or legacy data logger failures). Automatic data recovery must be demonstrated. All alarm activations must be demonstrated. A System Acceptance Test plan must be developed by the vendor and submitted to Ecology at least 30 days before the start of the test. Ecology must approve the plan before the test is initiated. The acceptance period ([see Section 1.31](#)) must be passed prior to starting the one-year warranty period.

4.6.1 Custom Modification and Integrated Testing (M)

Ecology anticipates proposed custom modifications in responses to this RFP. It is important for Ecology to know the vendor's approach to modifying its core system and ensuring that the system functions properly before going into a production environment. Describe the vendor's approach for developing Test Plans (System and Integration) including development of test cases and test data.

Response:

4.6.2 Regression Testing (M)

Describe the vendor's approach for re-testing failed test cases after system modification. Include a description of regression test procedures.

Response:

4.6.3 Parallel System Testing (M)

Describe the vendor's process of parallel system testing (or other acceptable method) for showing that the same test cases processed by the existing legacy data acquisition system and the newly acquired, configured and modified system have the same results, including an explanation for any discrepancies in the results.

Response:

4.6.4 Updating Documentation (M)

Describe the vendor's approach for updating documentation based on test results.

Response:

4.7 System Testing and Acceptance Plan (M)

The successful vendor will be required to demonstrate the DAS readiness to perform all functions and business requirements successfully. This task will precede User Acceptance Testing.

The System and Integration Testing is designed to ensure that Ecology can process all air monitoring data, meet all reporting and tracking requirements, and utilize properly functioning data interfaces.

System and Integration Testing must include a pilot test of actual data in a full operational environment from data acquisition to submission of data to EPA/AQS. An additional component of the System and Integration Testing is the demonstration and verification of data security.

Deliverables from System and Integration Testing will include but are not limited to:

- *System and Integration Test Plan*
- *System and Integration Test Criteria (Ecology and vendor joint effort)*
- *System and Integration Test Report*
- *A data acquisition and reporting system that passes all System and Integration requirements*

4.7.1 System and Integration Testing (M)

The vendor's proposal must describe vendor's approach to System and Integration testing of the Ecology business continuity and data backup procedures.

Response:

4.7.2 Volume Testing (M)

Describe vendor's approach to volume (e.g. load, stress) testing to include data downloads from monitoring sites, meet all reporting and tracking requirements, and utilize properly functioning data interfaces.

Response:

4.7.3 System and Integration Testing Roles (M)

Describe roles of Ecology and successful vendor staff during System and Integration Testing.

Response:

4.8 Site Preparation Plan (M)

Vendors must provide all specifications and requirements for installing new data logger equipment at air monitoring sites. These must include but are not limited to physical space (footprint), electrical,

environmental, cabling, telecommunications, construction, and peripheral equipment requirements. Ecology will be responsible for preparing air-monitoring facilities according to vendor specifications.

Response:

4.9 Training

The vendor must submit training plans for the implementation of the new system and equipment, including the following subsections.

4.9.1 Installation-Remote Sites (M)

The vendor must train Ecology and partner staff to configure and install remote sites. Training must be conducted in Lacey, Washington. Describe your implementation of this requirement.

Response:

4.9.2 Support-Training-Central System Operator(s)/Administrator(s) and IT Support Staff (M)

The vendor must provide on-site training on system administration, system configuration and the application functions. This may occur in a small group setting. Describe your implementation of this requirement.

Response:

4.9.3 Support-Training-Site Operators (M)

The vendor must provide on-site training for site operators (this training need not occur “in the field”). This may occur in a large group setting. Describe your implementation of this requirement.

Response:

4.10 Documentation

4.10.1 System and Application Documentation (M)

The vendor must provide documentation that covers all system hardware, system software, and application software. Documentation must be provided in Adobe PDF format and shall be network accessible. Similar approaches are acceptable. Describe your implementation of this requirement.

Response:

4.10.2 Web-enabled System and Application Documentation (V)

It is very desirable for the vendor to provide the following types of documentation in web-enabled

format, accessible over the network (intranet):

- Data flow specifications
- System structure outlines
- Description of the functions of the primary system components.
- User's Guide - This document should be a standard operations guide and should be organized by function rather than by software structure. It should include a system overview, functional descriptions, and a detailed reference section. Any technical orientation to the document should derive from the nature of the task that is performed rather than the software implementation. The document should describe the system as a whole, both hardware and software as specified.

Describe your implementation of this requirement.

Response:

4.10.3 Technical Documentation (M)

The system deliverables must include technical documentation for all product(s) including Database definitions, logical data model, and record layouts. At the end of the project, technical documentation must be in a central repository and indexed so as to be easily retrieved. Describe your implementation of this requirement.

Response:

4.10.4 Documentation-Data Repository-EDIT Database-Design Documents (M)

An Entity/Relationship diagram must be supplied, preferably via Microsoft Visio. Describe your implementation of this requirement.

Response:

4.10.5 Documentation-All Central System Users & Site Operators (M)

Vendor must provide tutorials, help files, and/or an on-line training system. On-line help is preferred. Describe your implementation of this requirement.

Response:

4.10.6 Documentation-Site Operations (M)

The vendor must provide tutorials, help files, and/or an on-line training system. On-line help is preferred. Describe your implementation of this requirement.

Response:

4.10.7 Documentation-Customizable (D)

The vendor should provide customizable and searchable on-line functional and system

documentation and help screens as well as applicable knowledge transfer to customize and maintain. Describe your implementation of this requirement.

Response:

4.10.8 Documentation-Retain Customized Documentation with Upgrades (D)

The vendor should provide capability to retain customized on-line documentation and help screens upon progressive software releases / upgrades. Describe your implementation of this requirement.

Response:

4.10.9 Documentation-Customizable Context-Sensitive Help Functions (D)

The vendor should provide a comprehensive and context-sensitive system help function that users can maintain, customize, and change. Describe your implementation of this requirement.

Response:

4.10.10 Documentation-Updates Provided with System Upgrades (M)

The vendor shall provide all updated system and user documentation at the time upgrades are applied to the vendor-installed system. The vendor must ensure that all documentation is kept current. Describe your implementation of this requirement.

Response:

4.11 Software Enhancements/Maintenance

4.11.1 Changes to Vendor's Code (M)

Ecology realizes that it may be asking the vendor to customize commercial off-the-shelf software. The vendor must document (percent code change required or other recognizable metric), in the RFP response, how much or how little modification will be required to the vendor's product(s) to meet Ecology's requirements.

Response:

4.11.2 Incorporation of Enhancements into Base Products (M)

The customer's experience with a COTS application often results in ideas for enhancements. Vendors may incorporate the enhancements into its base products or maintain customized versions of their products for different customers. The vendor's approach to this can affect support of the products and support costs passed along to the customers. The vendor must describe its approach to incorporating individual customers' enhancement ideas into the base products. The vendor must also specify the percentage of its customers that have unique versions of the vendor's products based on customer business requirements that aren't incorporated into the base products.

Response:

4.11.3 Frequency of Issuing New Releases of Products (M)

The vendor must describe the frequency of issuing new releases of its products. The vendor must also distinguish between major releases versus patches (bug fixes). Describe your implementation of this requirement.

Response:

4.11.4 Current Versions Supported (M)

The vendor should describe how many versions of its software are currently supported, their release dates, and the nature of support provided for back-level versions.

Response:

4.11.5 Software and Hardware Maintenance Coverage (M)

Ecology requires that the first year of maintenance is included in the initial purchase of the software and hardware. Maintenance coverage starts when the system has been officially "accepted" by Ecology. The vendor must:

a) Describe the services and benefits customers receive when they purchase annual maintenance

contracts (e.g., what is covered);

b) List items not covered through annual maintenance contracts (e.g. covered on a time and materials basis);

c) Describe what happens when the system fails or a major piece of hardware has been replaced under warranty (e.g., Is the warranty extended to cover the new piece of equipment?)

Response:

4.11.6 License Agreement Document (M)

If the vendor licenses the system/software, the vendors must submit a copy of their standard software licensing agreement.

Response:

4.11.7 Maintenance Agreement Documents (M)

The vendor must submit copies of their standard agreements for licensing and maintenance.

Response:

4.12 Warranty

4.12.1 System-Warranty (M)

Complete warranty of system products supplied by the vendor must be in effect for the first year after acceptance. During that period, at a minimum, the vendor is responsible for labor, parts, and materials to correct any problems that result in any of the conditions of the scope of work not being met. The vendor will provide support that must be available M-F 8:00 a.m.-5:00 p.m., Pacific Time. Response times must be within one business day.

Response:

5 Reference Information

5.1 History (M)

The vendor must provide information or status on the following:

- a) If the vendor or any Subcontractor contracted with the State of Washington during the past 24 months, indicate the name of the agency, the contract number and project description and/or

other information available to identify the contract.

- b) If the vendor's staff or subcontractor's staff was an employee of the State of Washington during the past 24 months, or is currently a Washington State employee, identify the individual by name, the agency previous or current employment, job title or position held and separation date.
- c) If the vendor has had a contract terminated for default in the last five years, describe such incident. Termination for default is defined as notice to stop performance due to the vendor's non-performance or poor performance and the issue of performance was either: (a) not litigated due to inaction on the part of the vendor, or (b) litigated and such litigation determined that the vendor was in default.
- d) Submit full details of the terms for default including the other party's name, address, and phone number. Present the vendor's position on the matter. Ecology will evaluate the facts and may, at its sole discretion, reject the proposal on the grounds of the past experience. If the vendor has experienced no such termination for default in the past five years, so indicate.

Response:

5.2 Financial Viability (M)

The vendor must provide the requested information for each vendor involved in the proposal.

- a) Describe any mergers or acquisitions specific to your company which have occurred in the past 12 months. Describe any planned or pending agreements to merge or sell your company.
- b) Has your company filed or been petitioned into bankruptcy or insolvency? If so, please provide details.
- c) Has your company been cited or threatened with citation within the last five years by federal or any state regulators for violations of any federal or state law and impending regulations? If so, please provide details. Failure of the vendor to fully disclose all information asked for in this requirement subjects the vendor to immediate disqualification from the procurement process or, if such failure is discovered after contract formation, grants Ecology the right to rescind the contract at its sole discretion.
- d) Include a completed [Appendix D](#) – Financial Information, Representations, and Disclosures form.

Response:

5.3 References (M)

The vendor's response must include at minimum of three (3) and a maximum of five (5) current references willing to speak with Ecology. References must be for entities/agencies that the vendor has provided very similar products to the ones being offered in this response. Each reference must include the name of the entity/agency, mailing address and three contacts (project manager/lead, site operator, and central system administrator) and a phone number and email address for each contact. References located in the United States or Canada are preferred but not required. Contacts must speak English.

Do not include current Ecology staff or staff from the local air agencies listed in [Section 1.2](#) as references. The vendor must grant permission to Ecology to contact the references. References will be contacted for the Finalist vendors only.

Ecology also reserves the right to identify other customers, not included as references, and may contact them as well.

Response:

6 Pricing Section

Many acquisitions request most accurate and favorable terms in the initial proposals, then ask for a Best and Final Offer. For this acquisition, vendors are instructed to provide Best and Final Offers in this section. Ecology will not allow the vendors to submit updated pricing after the proposal submission deadline. Vendors have until the deadline to make corrections to their proposals. If, however, the proposed costs in all proposals are deemed by the NWADES evaluation team as unacceptable, Ecology reserves the right to reject any and all proposals. **These are all mandatory elements, and must be satisfied at the time the proposal is submitted. Failure to provide cost information will result in disqualification. If there is no charge for a subsection, state so in the "Description" area.**

6.1.1 Summary Cost Proposal Form (M)

Vendor must submit a completed [Appendix C – Summary Cost Proposal Form](#) using cost totals from the remaining elements of Section 6.

6.1.2 Central System Software Costs (M)

Instructions:

- Delineate all components that can be licensed or provided separately (e.g., modules, sub-systems)
- Itemize all proposed software, providing the item name, short description, quantity, unit cost, and extended cost.
- If costs are included with other items outside this subsection, identify where the costs are included.
- Include all applicable sales and use taxes

(Sub)Section	Description	Quantity	Unit Cost	Total
Total Software Costs				
List all major assumptions that were used to determine costs and describe how the software costs were established, such as site license, seat license, etc.				

6.1.3 Data Logger Costs (M)

Instructions:

- Identify the cost of hardware items proposed in [Section 3.17.1](#) (Data Logger Options)
- Identify any quantity pricing based on the purchase of 20, 40, 60, and 80 data loggers.
- Identify any software costs (e.g. software modules required for PC-based data loggers)
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit Cost	Total
Total Delivery and Installation Costs				
List all major assumptions that were used to determine costs:				

6.1.4 Delivery, Installation, and Configuration Costs (M)

Instructions:

- Identify the cost of delivery of software
- Identify the cost of delivery of hardware (e.g. data loggers)
- Identify the cost of installing hardware, including installation assistance
- Identify any costs of installing the software, including installation assistance
- Identify any software installation documentation costs
- Identify the cost of configuring the new system after installation
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit Cost	Total
Total Delivery and Installation Costs				
List all major assumptions that were used to determine costs:				

6.1.5 Application and Technical Training (M)

Instructions:

- Identify the courses and costs for training staff based on their roles (e.g. Site Operators, System Users, System Administrators, Managers, etc.) Include costs for training the technical team in the core application tools
- For Location, indicate “On-Site” (Lacey) or “Off-Site” (Air Monitoring Site). Ecology’s preference is for On-Site training
- Include all applicable sales and use taxes

Location	Course	Role	#Students	Course Cost	Total
Total Application and Technical Training					
List all major assumptions that were used to determine costs:					

6.1.6 Documentation Costs (M)

Instructions:

- Identify the cost of all documentation required (standard and custom)
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit Cost	Total
Total Documentation Costs				
List all major assumptions that were used to determine costs:				

6.1.7 Project Management Costs (M)

Instructions:

- Identify the cost of all planning and startup costs required
- Identify Orientation Costs
- Identify Project Work Plan Costs
- Identify Project Status Meetings and Status Reporting Costs
- Identify other labor costs, travel, lodging, per-diem, etc., in accordance with Washington laws:
<http://www.ofm.wa.gov/policy/travel.htm> Rates must not exceed those listed at:
<http://www.ofm.wa.gov/policy/10.90a.pdf>

- Expenses shall be billed at cost and should be listed in the project phase in which they will occur (Note: Vendors shall not preload continuing costs into the first phase)
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit Cost	Total
Total Project Management Costs				
List all major assumptions that were used to determine costs:				

6.1.8 Customization Costs

6.1.8.1 Customization Design Costs (M)

Instructions:

- Identify all COTS modification design costs based on customizations listed in Section 3 (Technical Elements).
- Include all applicable sales and use taxes

Item	Staff Role	# Staff	# Hours per Staff	Hourly Rate	Total
Total COTS Modification Design Costs					
List all major assumptions that were used to determine costs:					

6.1.8.2 Customization Development Costs (M)

Instructions:

- Identify all COTS modification development costs based on customizations listed in Section 3 (Technical Elements).
- Include all applicable sales and use taxes

Item	Staff Role	# Staff	# Hours per	Hourly	Total
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			Staff	Rate	
Total COTS Modification Develop Costs					
List all major assumptions that were used to determine costs:					

6.1.9 System/Integration Testing Costs (M)

Instructions:

- Identify all system/integration testing costs based on responses in Section 4 (Project Management and Implementation Elements).
- Include all applicable sales and use taxes

Item	Staff Role	# Staff	# Hours per Staff	Hourly Rate	Total
Total System/Integration Testing Costs					
List all major assumptions that were used to determine costs:					

6.1.10 User Acceptance Testing Costs (M)

Instructions:

- Identify all user acceptance-testing costs.
- Include all applicable sales and use taxes

Item	Staff Role	# Staff	# Hours per Staff	Hourly Rate	Total
Total User Acceptance Testing Costs					
List all major assumptions that were used to determine costs:					

6.1.11 Implementation and Deployment Costs (M)

Instructions:

- Identify all Implementation costs.

- Include all applicable sales and use taxes

Item	Staff Role	# Staff	# Hours per Staff	Hourly Rate	Total
Total Implementation and Deployment Costs					
List all major assumptions that were used to determine costs:					

6.1.12 All Other Initial Costs (M)

Instructions:

- Identify all other initial costs that have not been previously identified
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit Cost	Total
Total All Other Initial Costs				
List all major assumptions that were used to determine costs:				

6.1.13 5-Year Software Licensing, Maintenance, and Support Costs (M)

Instructions:

- Delineate all components that can be licensed separately (e.g., hardware, modules, sub-systems, documentation)
- Provide separate sub-totals for each module and/or sub-system
- Include any estimated costs for custom modules based on responses to Section 3 (Technical Elements)
- Delineate support cost options (e.g. “per call”, unlimited calls, etc.) based support from Monday through Friday, 8:00 a.m.-5:00 p.m., Pacific Time, with maximum of 2 hours response time.
- Describe the method for calculating annual software licensing, maintenance and support costs. (e.g. per user, per seat, per system, per number of licensees, percentage of initial purchase price)
- Include all applicable sales and use taxes

Item	Description	Quantity	Unit	Year	Year	Year	Year	Year	Year	Total
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			Cost	1	2	3	4	5	6	
All	First included in initial purchase price			N/A						
Total Software Licensing, Maintenance, and Support Costs										
List all major assumptions that were used to determine costs:										

6.1.14 Hourly Rates for Change Requests (M)

Instructions:

- Identify hourly rates by resource type for change requests not covered in the original RFP requirements.
- This includes change requests for system enhancements as may be defined by Ecology, to be exercised at Ecology's option during implementation.
- Include all applicable sales and use taxes.

Item	Description of Resource Type	Hourly Rate
List all major assumptions that were used to determine costs:		

